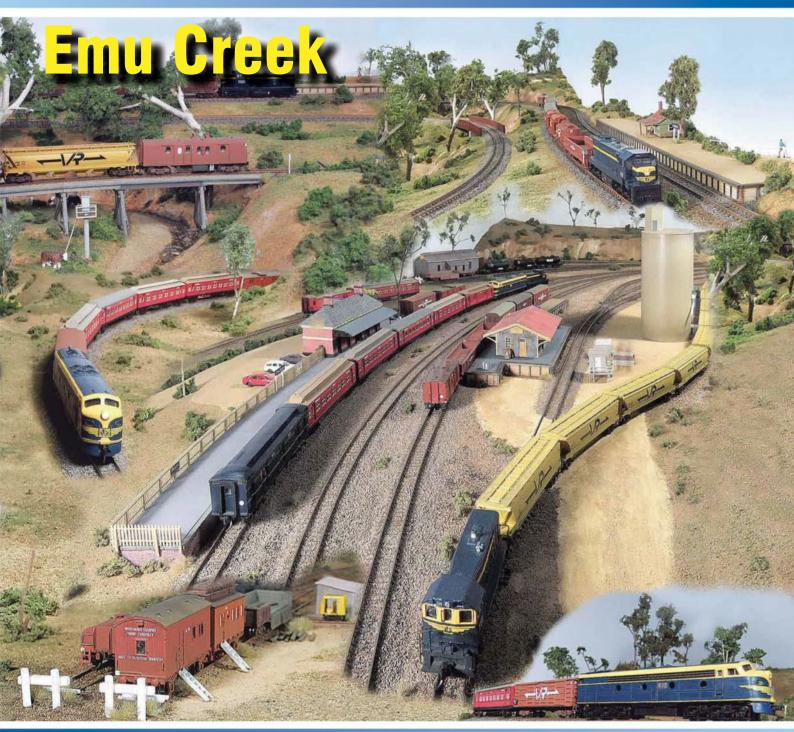
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Australian MODEL RAILWAY Magazine

Editor: Ian Dunn

Comment

By Bob Gallagher | Febi

What's Wrong With It?

In November 2015, Christmas has come early; boxes of newly released models have arrived and await checking before putting onto the model railway. That some of these models have been long awaited has increased the Christmas present excitement. There's the L, the 50, the 43 and the XPT, among many. As the models are unpacked and viewed for the first time, a question or two arise. Is it right? What's wrong with it?

I am of course referring to the prototype authenticity of the individual models. In some instances it is not the first time a model of these prototypes has been on the layout. In fact, the first 50 class was acquired in 1970, a Japanese hand-made brass import, as was the first 43 class in the 1980s. And the XPT has been around before, but as an OO scale model of the British HST dressed up in NSW colours. That the model must look right is very important, maybe more important in the weeks after it has been received than later, when the individual models on the layout become but a small item in a larger scene.

This need for prototype authenticity was acquired when first becoming interested in Australian prototype. Back then (the late 1960s), nothing could be purchased except for terribly expensive hand-crafted brass engines and we were left to our own resources for most of our models. The then Australasian Model Railroad Magazine encouraged us, via the writings of Jack Grierson, to build our own with a step by step guide to constructing a simple 0-6-0, which was the basis for any steam locomotive. As many of the engines we were making were no longer around and reference sources limited to a good photograph and basic weight diagram, the task of forming an impression as to the 'look' of a model was not easy. But form an impression we did and many of us were unforgiving if anyone took a short cut, with say using an oversized OO scale mechanism, or an American F7 body for a Clyde-built Bulldog-type loco. The model had to look right!

Of course, many of us were unknowingly 'shown up' when the first HO scale 44 class arrived in the early 1970s. There were no scale drawings of the prototype to compare the model with, but to many it looked right, as long as one did not look too close. And very few of us did (look close that is). This is one reason why a talented modeller, Paull Alekna, was challenged when he suggested a good model of the 44 could be produced by cutting up the shells of a couple of models into many, many parts and putting them back together. Very few of us took up the kitbashing challenge and so this commercial model helped form the wrong impression in or minds as to the shape of a 44 class. Something some of us had to readdress when a much more accurate 44 class became available. That we were very quick to identify the 'wrong' shape of the first Victorian S class as a case in point; a General Motors model with an Alco nose. As modellers we complained, and our complaints were addressed with a better

But this does not help us with the models now being produced in China. Our impression of a prototype has been influenced sometimes by incorrect early version models, and this can cause us to ask, 'What's wrong with it?' Of course, time will see this problem fade away, but what do we do when we think a new model is 'not quite right'?

Production Manager: James McInerney

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ON THE COVER: Busy scenes on a Victorian country railway, circa 1978. A montage of activity on Tony Scott's now dismantled N scale home layout, this issue's feature layout article, starting on p.16. Photos by Tony Scott.

Relax with Model Railways

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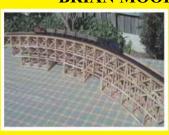
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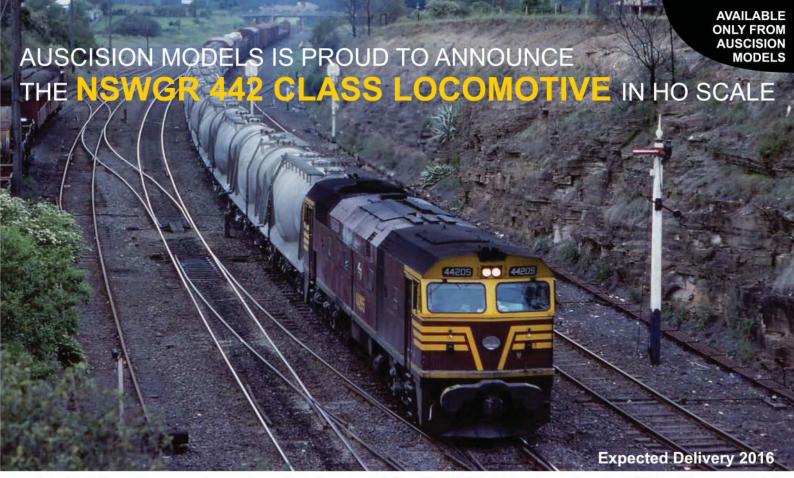
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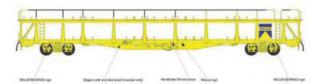
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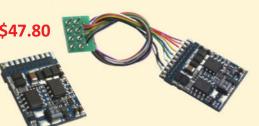
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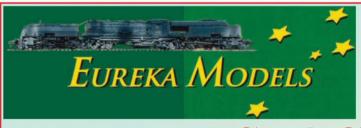












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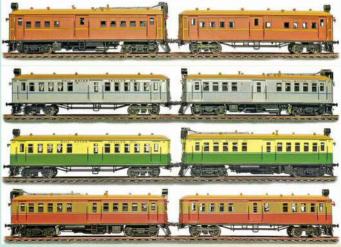
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Page 12. February 2016

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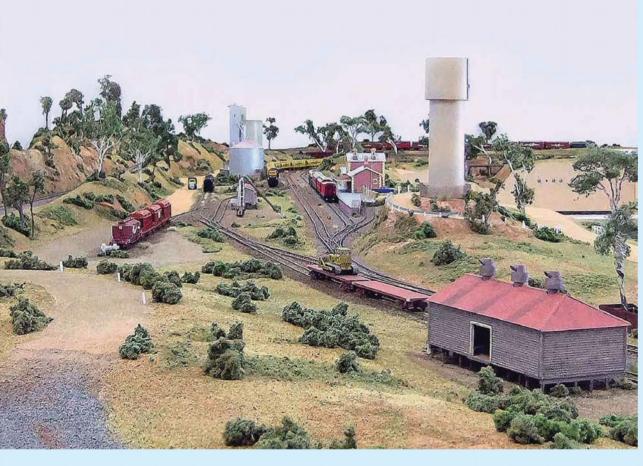


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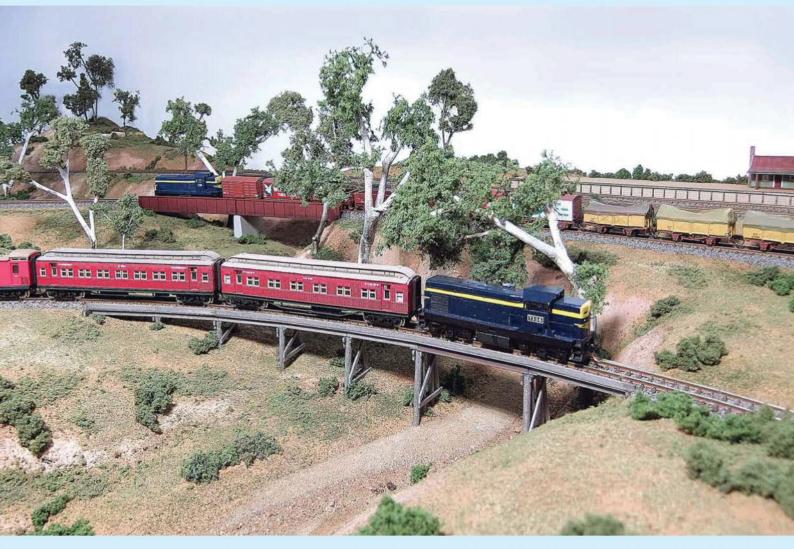
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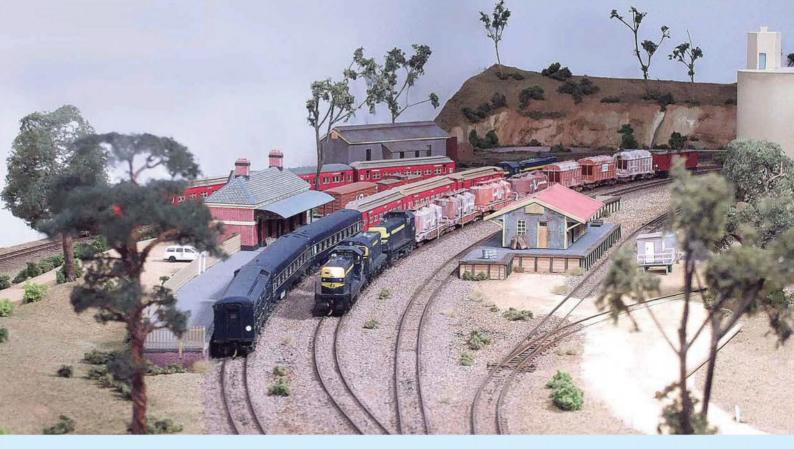


- A panoramic view of the intermediate station of Sutherland's Flat. An up passenger train pauses at the platform while a wheat train is being loaded at the silo complex.
- Busy times at the terminus at Emu Creek. An X classhauled up passenger train of non-airconditioned wooden and airconditioned steel cars waits for departure time in the platform, while a heavy down cement train drifts into the loop behind two Y class and a T class diesel.

▼ A passenger train crosses a timber trestle bridge over Deep Creek, heading towards the 'big smoke' after leaving Sutherland's Flat. In the background, a section behind and yet to arrive at Sutherland's Flat, an up goods crosses a steel girder bridge over the same creek, near Huondale.



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Emu Creek

Tony Scott describes his N scale Victorian Railways-inspired home layout. Photos by the author.

originally became interested in N scale in the late 1970s, after reading Peter Clark's articles on building VR N scale rolling stock in AMRM. Although I was living in north-west Queensland at the time, I had a preference for the Victorian Railways because I was born and bred in Victoria and I expected to return there some time in the future. The paucity of commercially available models representing the VR I took as a challenge.

With the help of nothing more than a little book called *An Australian Locomotive Pocketbook* and some plans I had obtained from VR headquarters while on holidays, I kitbashed a B, S, X, T and Y class diesel from various American models, and scratchbuilt several wagons and guard's vans, but a layout never eventuated.

My interest in model railways then remained more or less dormant for over 30 years until, having finally moved back to Victoria, it was rekindled in 2008 when I visited the Hobsons Bay exhibition, where *Wallan* was being displayed by members of the Victorian N Scale Collective. I was immediately hooked and joined the club there and then.

After making a half-hearted attempt at a layout in a spare room, I managed to obtain a 5m x 3m train room in a new steel shed. This was to be the home of my first real layout, *Emu Creek*, a mere 35 years after I first started railway modelling!

Design rationale

For years I had dreamt that if I ever got to build a proper layout it would feature a branch line meandering through rural scenery. I liked the idea of the activity generated at a terminal station and the excitement of trains crossing at an intermediate stop. However, the other end of the layout was a bit hazy in my mind.

Having moved to Bendigo, I found a ready-made branch line that helped clarify my thoughts and put some flesh on the bones, so to speak. This was the Castlemaine to Maldon branch. *Emu Creek* is not a replica of this line in any way, but it has provided the inspiration for an 'old-fashioned', single-track, rural branch.

The 'other' end of the layout eventually resolved itself into a return loop which doubled as a fiddle yard by having three tracks. I would have liked a continuous run, but settled for the terminus to return loop configuration which I called a 'half-continuous' setup. The total one-way run length was 26m, equivalent to 4.1km in the real world.

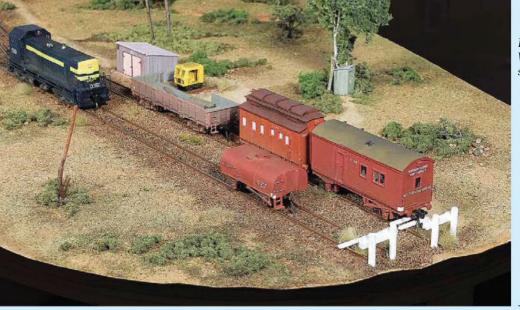
Apart from the type of layout to be built, the main criterion was that I wanted something that could be more or less 'completed' in a reasonable time span (i.e.: my lifetime!), not an 'empire'. I also wanted to have broad curves with as few straight sections as possible. And no duck-under!

The era was fairly easy to determine. I have faint, but fond, memories of travelling to Albury on the *Spirit of Progress* and going for day trips to Daylesford in a Walker rail motor. I also wanted a train of wooden clerestory-roofed carriages (which fortunately had just been produced in kit form by Spirit Design), so it was always going to be the blue and gold days. I settled on about 1978, when the state system was still the Victorian Railways, wooden carriages were the norm on many routes, and the re-coding of freight wagons had only just begun.

Construction and Track

The layout was drawn up using XTrackCAD. By including the benchwork, it allowed adjustments to be made so that point mechanisms were not located directly above framework members. That was fine except that I made a few changes on the run and one or two did end up in the wrong place!

There were two main rail yards where most of the turnouts were located; one at the terminus and the other at the passing station, Sutherland's Flat. In addition there are several turnouts at either end of the sidings that make up the return loop. These three areas were therefore constructed as removable sections, so that wiring and point control mechanisms could be installed easily while standing. When all the work beneath the baseboard was completed the sections were screwed into place and track laid over the joins.



Diesel-electric locomotive Y152 pauses near the Works Siding at the terminal end of Emu Creek station.

At A Glance

Scale: N

Prototype: VR rural branchline

Period: circa 1978

Layout Type: Terminus to return loop

Layout Size: 5m x 3m

Rail Height Above Floor: 1100mm

Baseboards: 6mm MDF with pine framing **Track**: Peco code 80 flextrack and turnouts

Control: DCC

Scenery: Carved and plastered polystyrene foam, with

Woodland Scenics ground covers secured by paint

Locomotives: Scratchbuilt bodies on commercial chassis and

r-t-r

Rolling Stock: Scratchbuilt, kit-built and r-t-r

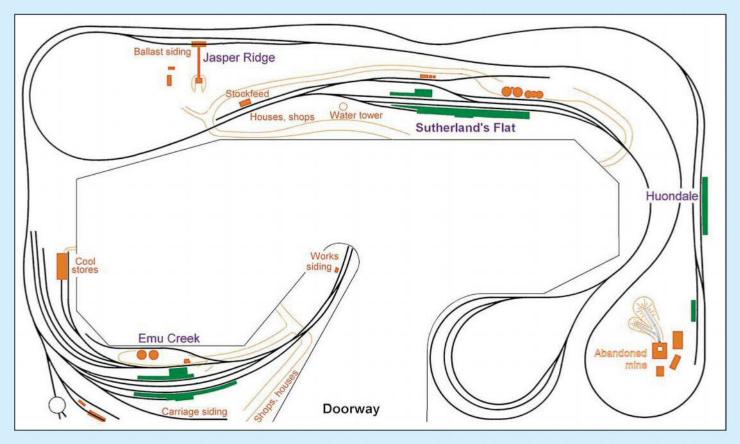
Builder: Tony Scott

Although I proposed to use DC, all points were made DCC-friendly and had their conductivity improved by installing jumpers between stock and closure rails, and feeders were soldered to every track section in the interests of fault-free running.

Peco code 80 flextrack was used throughout. All turnouts were Peco live frog (large radius on the main and medium radius in yards) and most were operated by a modified wire in tube method, using one or two short lengths of brass tube to guide the wire rather than a full length tube. A small diode matrix and CDU controlled Peco point motors at each end of the return loop tracks.

My desire for broad curves was achieved by making all mainline curves more than 400mm (16") radius; in fact, most were more than 480mm (19"). The smallest radius curve was 340mm (13½") on the innermost track of the return loop. The sweeping effect of the curves was enhanced by superelevating them with several strips of masking tape laid beneath the outer edge of the sleepers.

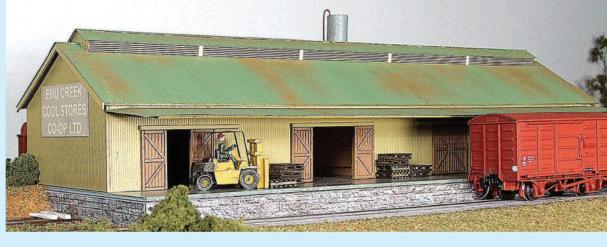
On the three removable sections mentioned above, a base-board of 6mm MDF was supported at 300mm intervals by 42mm x 19mm pine on edge, and covered by a sheet of 5mm neoprene (rubber). Elsewhere the MDF was supported by risers. Track was glued directly to the neoprene or MDF with spirit-based Kwik



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▶ A B van is being loaded with produce for despatch to the city at Emu Creek's cool store.

▼ An overall view of Emu Creek station. Today's passenger train is hauled by S312, while B81 and Y152 shunt the yard.



Grip which remains very slightly flexible when set. I did not use cork or any other underlay as it would make the ballast profile far too high for a branch line.

All the track was sprayed with Tamiya TS-1 Red-brown and ballasted with Woodland Scenics fine ballast, using a 2:1 mix of grey and dark brown on the main line, with more brown on yard tracks.

Control

Emu Creek began life with DC control, using my trusty 50 year old H&M Clipper transformer/controller. It was divided into seven electrical blocks to facilitate the running of multiple trains concurrently.

Within a year, however, I couldn't resist the benefits of command control any longer, so converted it to DCC upon purchase of an NCE PowerCab system. I was surprised how few modifications were needed; even the reversing loop worked without any changes, with the added benefit that trains didn't have to be brought to a halt when throwing the DPDT switch (I hadn't yet heard about automatic reversing units). I also reaped the benefit of the electrical improvements made previously to the points and all the track sections.

Later on I upgraded from the PowerCab to an SB3a booster 5A system. I also bought a second throttle and converted to radio control. It's wonderful to be free of the tyranny of tethered throttles!





■ A down empty wheat train, in the capable hands of B81 and X32, rolls through the 'wig-wag' protected level crossing at the country end of Sutherland's Flat.

Scenery

Topography was built up with polystyrene from fruit and vegie boxes (free) carved to rough shape, covered with a thin layer of plaster compound, sanded when dry, and painted with a Dulux colour called Vogel. Various Woodland Scenics ground covers were dropped on while wet—I didn't try for total coverage because Vogel is a good match for the yellowish-brown clay soils of Central Victoria.

There were several main scenes. The terminus at Emu Creek consisted of a works siding (where a workmen's shower car and sleeper were stabled), the station, goods shed, loco shed, disused turntable, silos, cool store and several storage sidings. Heading away from Emu Creek, the traveller encountered: a ballast siding with conveyor loader and bins, Atco office and container workshop; a deep creek with three different types of rail bridges; a small station with passing loop (Huondale); an abandoned mine; a farm; and then Sutherland's Flat station and yard, containing a feed store siding, station, goods shed, yard crane and silos.

Rural scenes are not really convincing without fences. Mine were built using four-hole laser cut posts made by fellow club member Chris Pearce, and threading them with 0.2mm piano wire. Farm gates were scratchbuilt from 15A and 8A fuse wire.

Trees are a mix of commercial and home-made efforts, the latter using painted twigs and Woodland Scenics fine leaf foliage.

Buildings

The two main station buildings were scratchbuilt and modelled on Central Victorian stations – Emu Creek is a model of Maldon, whilst Sutherland's Flat is a representation of Kangaroo

Flat near Bendigo. The ballast loader is also scratchbuilt and based on one at Minnipa in South Australia.

I love the old buildings that abound in many Central Victorian towns – from the humble miners' cottages to the grand mansions and hotels built during those far-off boom years. They all have great character and a beauty that is often lacking in modern structures, and they cried out to be modelled. I got as far as building four shops copied from some that had caught my eye at Elmore and Maldon, before the layout was dismantled.

The farm house is one of the excellent laser-cut timber kits from Little Building Co. The 50' goods shed and the small station and platform edging at Huondale are laser-cut kits from Spirit Design. The grain silos, water tower, cool stores, and 6t crane (a copy of the one at Coburg, written up in AMRM Issue 113, April 1982) were all scratchbuilt.

I enjoyed building the structures immensely. The main material used was styrene, with balsa here and there, and Campbell's HO corrugated aluminium for the roofs. I prefer the HO variety as the ripples in N scale roofing iron are barely discernible and the HO doesn't look out of place.

Locomotives

When I returned to the hobby in 2008, I had five diesel locos built in the late 1970s on various chassis that were then available. Although they wouldn't have won any prizes for accuracy to prototype, they were pretty fair representations, none-the-less. I had put a lot of effort into them and there was no way I was going to ditch them, but they all ran very poorly and were in dire need of refurbishment.



■ No longer providing traffic for the railway is this abandoned mine near Huondale.

▶ Real railways don't operate only during the day and the line to Emu Creek is no exception. The yard lights at Sutherland's Flat cast an illuminating glow over proceedings.



Motors had gone rusty, the Y class chassis had broken in two and was held together with fishing line, the two halves of the E8s that made the B class were stuck together with Araldite (not a good conductor!), the X, T and F classes suffered from very poor pickup and the S class was only a dummy. So all were remotored—the S and X have LifeLike SD7 mechs, the B is on an Atlas SD7 mech and the T and Y are now powered by Atlas MP15s, the only commercial mechanism available that would fit inside the relatively narrow VR hoods. I'm pleased to say that all are still giving sterling service.

More recent additions are another Y class (built on an MP15

chassis and mech) and two T classes from Aust-N-Rail, which each have a Kato NW2 beneath them. A ready-to-run DERM rail motor produced by Colin Bolin and shown at the 2013 N Scale Convention was quickly snapped up. The roster, while not large by some standards, is plenty big enough for my needs.

I like my locos to have operating headlights – without them they seem half-dead. So all of them have operating LED headlights, including the DERM, which was an interesting installation, but sound is a bridge too far. In my view N scale sound is too tinny and a pretty poor representation of the real thing.



Another source of revenue for the railway is the ballast loader in the Huondale-Sutherland's Flat section. A rake of QR open wagons waits to be loaded.



A typical timber-built farmhouse nestles in the trees near Jasper Ridge.



Light engines Y134 and T356 wait in the loop at Sutherland's Flat for permission to proceed as Y152 shunts bogie cattle wagons past the crane and goods shed.

Rolling Stock

Few commercial products were available in the 1970s and 1980s, apart from Fybren Models' ELXs and VLXs and Weico whitemetal S cars, but little else. More recently the VR modeller in N scale has been very fortunate with a substantial number of

kits and r-t-r models produced by local manufacturers to a high standard. Particularly pleasing was the introduction of the r-t-r bogie grain hoppers from Aust-N-Rail and the iconic wooden E and W car kits from Spirit Design, which are strongly indicative of the rural scene and the era being modelled.



◀ There does not appear to be much happening at the Sutherland's Flat feed store today.



◄ Even the main street at Sutherland's Flat appears to be all but deserted today.



▲ An up goods, in the charge of X32, rolls into the loop at Huondale station.

As with structures, I also enjoy scratchbuilding rolling stock. This includes several guard's vans (C, CE, ZF, ZL, ZLP, BCPL), three tank wagons, a QS sixteen-wheel special wagon, a Pintsch gas wagon, a WT water tank and workmen's sleeper and shower cars. The rolling stock roster comprises about a hundred units.

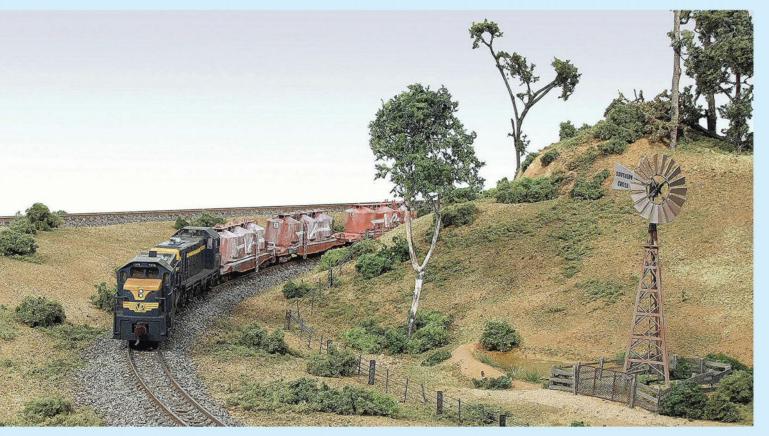
Weathering is an on-going project—in other words, a few cars get done now and then! My favourite medium is weathering powders (I have a set from Bragdon), occasionally supplemented by the sparing use of oil paints.

Conclusion

One of the aspects of railway modelling I thought I would never embrace was operations, but the more I get into the hobby the more obvious it has become to me that realistic operating is the natural outcome of all the effort that has gone before. But operations need to be based upon at least a passing understanding of the workings of the prototype, and here I must admit to a serious lack of knowledge. However, this is where one of the benefits of belonging to a club becomes evident, as there are several members of the VNSC with intimate knowledge of the prototype who are only too willing to share it. As it happened, an impending move meant the layout had to be demolished before any attempt at an operations system could be made.

Nevertheless, I definitely achieved my main goal with *Emu Creek*, which was to complete, more or less, a satisfying layout in a reasonable time frame (four years) with an acceptable level of scenic realism.

▼ The cement train seen earlier has been unloaded at Emu Creek and is now returning to the city. It was captured on film rolling past a windmill on the curve approaching Sutherland's Flat.



Australian MODEL RAILWAY Magazine



Building Ballast Plough N2

Peter Ennis converts an HO scale Steam Era Models 'Tommy Bent' IA open wagon kit into a model of the VR's ballast plough N2. Prototype photos by the author, model photos by James McInerney.

The assembly of the wagon will be a mixture of SEM and scratchbuilt parts. Dimensions shown in the sketches in Imperial units are measurements of the prototype; dimensions shown in metric are for the HO scale model.

File the centre sill down to the same height as the side sills (scale 10").

File flush with the wagon floor the brake cylinder and air reservoir supports.

Using 0.020" styrene sheet, cut off small sections to fill in the notched areas on the floor edges that are provided for when this floor is used with other kits.

Lightly file these sections flush with the original floor, giving a finished width of 8'6". The wagon floor is plate steel with a central timber section (3'3" wide by 4'6" long) to allow access to the plough's lifting mechanism [Drawing 1].

To represent this area, with a pencil mark out the area on the wagon floor and then with an Exacto knife score lines in the plastic to represent the 6" wide timber planks.

The timber box that protects the prototype's lifting mechanism will be fitted further on in the process.

Pre-drill for the couplers' self-tapping screws.

Following SEM instructions, fix into position the side sills and brake shoes.

Using the supplied open wagon ends, cut them down to a height of 2'3" inclu-

sive of the buffer beam. The tops of the end bracing are bevelled at 45°. Before fixing in place, remove what remains of the moulded-on shunter's handrails.

The IA buffer beam supplied is bevelled at the lower corners. To recreate the prototype's buffer beam shape, glue scrap 0.020" styrene sections in place and square off the ends with a file.

Fix into position the new sides made from 0.020" [Drawing 2].

Fix into place the wagon gunwale and file a rounded edge, as the prototype has pressed sheet steel sides.

Then fix in place the internal angled gussets that strengthen the sides [Drawing 3].



On 14 October 2004 the author was at Muckleford, Vic. to photograph and measure preserved VR ballast plough N2 for this article. This photo shows the end with the handbrake.



The other side and end of N2. When in use the vehicle ploughs towards the photographer.

The Prototype

This former Victorian Railways ballast plough is now under the care of the Daylesford Spa Country Railway and has recently been on loan to the Victorian Goldfields Railway for the extension of the line from Muckleford to Castlemaine.

Ballast plough N2 was constructed in April 1953, utilising the underframe of louvred van U231. I do not know if the actual plough and associated lifting mechanism were new or gifted from an even earlier ballast plough.

There were two other ballast ploughs, N1 built on a six-wheeled underframe with the centre axle removed to fit the plough, scrapped in 1972, and N134, which does not appear on the Rolling Stock Registers after 1962.

Both the websites of Peter J Vincent (www.pjv101.net) and Mark Bau (www. victorianrailways.net) have more details on this vehicle.

Ballast ploughs of this design fell out of use in Victoria, although they were retained on other systems. In recent times, with the ARTC taking over the control of a number of lines in Victoria, we have seen the return of the ballast plough. The biggest problem for the old-time VR ploughs was they only had one blade, in comparison to the newer ones which have two blades, eliminating the need to turn them to allow ballast spreading.

Use 0.005" styrene sheet to add the 2" outside strips that are outboard of the internal angled gussets [Drawing 8].

To further strengthen the sides, two 9" x 6" gussets were welded to the side sill and wagon floor on each side in line with the outside strips of metal. This arrangement braced the sides to the side sill to allow for the rigours of service life.

Use 0.005" styrene sheet make up and fix in place the wagon side and end corner bracing.

The combined air reservoir and brake

cylinder will be fitted after the plough is fitted.

To achieve the correct weight for the model as recommended by Kadee is next to impossible [and unnecessary with Australian four-wheel wagons – Editor], but I suggest placing lead strip between the centre sill sections on the underframe, as well as some lead sheet suitably cut to fit in between the coupler and side sill before proceeding to the plough construction phase.

The Goldfields Railway added steel bins containing scrap steel after preservation, to

increase the weight of the wagon during ballast spreading operations. Two of P J Vincent's photographs of N2 shows large rocks placed in the wagon to add weight: http://www.pjv101.net/gallery/Wagon%20Details/Service%20Stock/N/index.html.

That gives us two further options to add weight and visual variety or you may choose to simply leave the wagon empty.

Plough Construction

Refer to Drawings 9, 10 and 11, plus photographs, for the details of the plough's construction.

Tools Required

- Tools Required
- Razor saw
- Xacto type modeller's knife
- 4" hand smooth file
- 4" engineer's square
- Alligator pliers
- HO scale rule
- No.76 and 2mm drills with a suitable drive

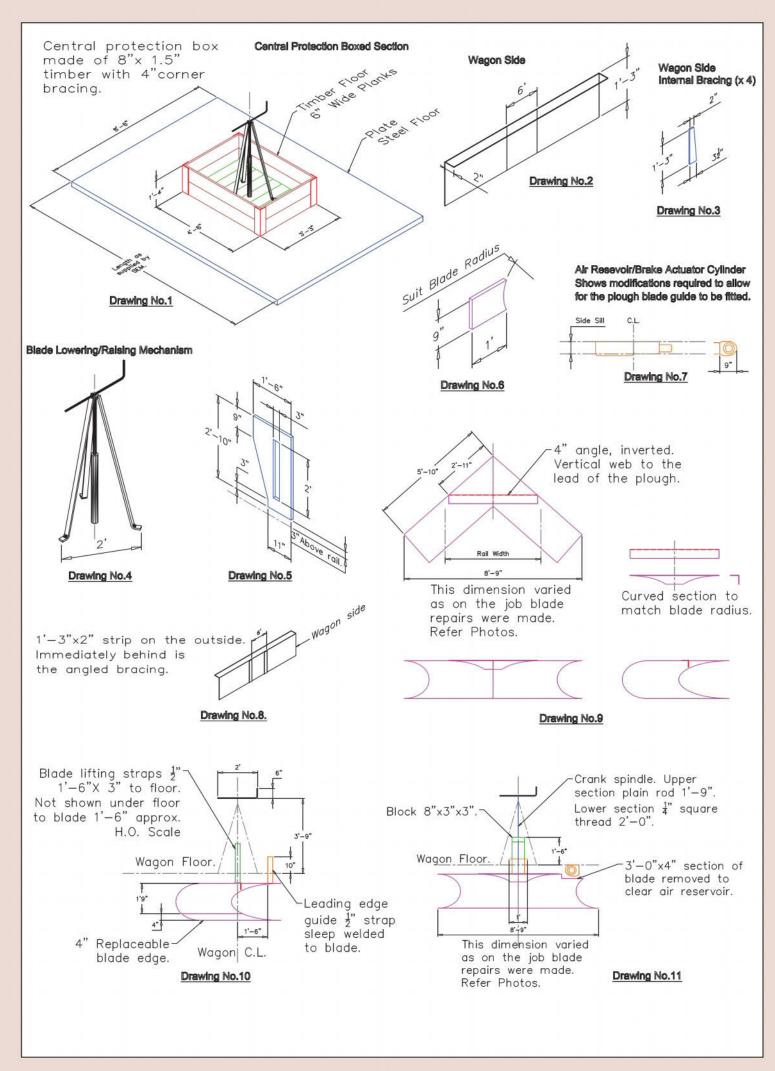
Materials Required

- SEM (R24) IA 'Tommy Bent' open wagon
- SEM IZ buffers
- SEM (C1) Bogie wagon brake accessories kit
- SEM (P7) VR wagon red paint
- SEM (M6) Imperial decals
- Bills Billboard's Decals: Bill has available a complete decal set for N2
- Evergreen Styrene angle section Item No.291 (this is the smallest available and scales at 5½", rather than the prototypically correct 4")
- Sheet styrene: 0.005", 0.010" and 0.020"
- Brass tubing: 6.5mm diameter
- Brass wire: 0.010" and 0.020"
- Kadee couplers or similar
- Superglue and styrene cement
- ▶ Detail of the plough and the brake cylinder.
- ▲ Close up of the plough guide and the connection between the plough and the wagon that transfers the forces of the wagon's motion against the resistance of the ballast.
- ▼ Detail of the plough operating mechanism. The boxes of steel scrap have been added after preservation to add more weight to guard against this somewhat light wagon becoming derailed during ploughing operations.









I chose a combination of brass tubing and styrene plastic to build the plough. Firstly cut a section of the 6.5mm tube 16' long, then remove with a modeller's saw a section to give the blade shape that is slightly larger than simply cutting the tube in half. Clean up with a file so that the blade has a uniform cross section along its entire length.

Now cut the plough blade in half and angle one end on each section at 45° to the centre line. Clean up the angled ends with a file, so that when joined the blade forms an included angle of 90°.

Reduce the blade sections in length to the dimensions shown in Drawing 9.

On the outer section of the blade, use a pair of pliers to slightly flatten out the tube, so that we now have a blade that has a tapering radius towards where the two halves join. This gives us a more prototypical blade, as the outer edges of the blade seem to have suffered distortion when in service. Refer to various photographs and you will notice that the blade was constantly being repaired in this area by welding on sections of plate.

Note how the individual blades are going together, then remove a section at the top of the blade that clears the air reservoir/brake cylinder [Drawing 11]

Superglue the two halves together then fit the 4" sacrificial blade edge made from 0.010" styrene strip [Drawings 9 and 10]. Depending upon how the tube was initially cut in two you may decide to leave the 4" sacrificial section off, as I chose to do.

The end sections of the Evergreen 4" angle will have to be filed to a curve to match the blade radius before fixing in place on the blade.

Now fix the blade assembly to the centre sill of the wagon.

To fit the combined air reservoir and brake cylinder is rather difficult, due to the lack of space created by the blade and the blade support. To fit the cylinder, some rather drastic surgery is required before fixing into place [Drawing 7]; these changes will not be visible when the wagon is viewed from the side.

Make up the plough supports [Drawings 5 and 6] that transfer the mechanical load of the forward progress of the blade against the resistance of the ballast, from 0.020" styrene sheet.

These supports are positioned to match the model rail gauge (16.5mm) and not next to the side sill as per the prototype 5'3" gauge. Hence, I have purposely left off the bracing that attaches to the support and the side sill.

Make up the plough tripod and crank handle device [Drawings 1, 4 and 10] by fitting the threaded section (0.020" brass wire) first, and then add the tripod supports simply by gluing these sections onto the wagon floor and to the threaded section one at a time. Fix into position the crank handle.

Fix in place the forward blade-centring device, as viewed from the wagon deck.

For the centre section that forms the box to protect the tripod and crank mechanism of the plough, I used 0.020" styrene scored

to represent the 8" x 1½" timber planking [Drawing 1].

Use 0.005" styrene to represent the corner bracing of the box.

Refer to SEM instructions to assemble the brake gear and photographs to show the position of the hand brake.

Fit the SEM buffers and the shunter's step at the handbrake end only.

The shunter's step support will have to be modified, as normally VR wagons did not have shunter's steps of that design at the end of the wagon when buffers were fitted.

Fix the couplers in place. From 0.020" styrene rod, construct the brake shoe



The handbrake end of the model. When simulated ploughing takes place on the layout, the vehicle should be behind the ballast wagons with the handbrake end to the rear.



The underside of the model of N2.

support arm attachment that keeps the brake shoes aligned with the wheel when the brakes are applied and then fix in place.

Paint the wagon VR russet red.

Using Anton's chain, attach 6" sections to the angled sections moulded on the buffer beam and the visible chain attached to the handbrake.

Bill's Billboard made the decal lettering Secure Locking Pin Before Travelling.

All the other decals are from SEM's Imperial Sheet (M6).

Wagon tare weight displayed on each side is:

T. CWT. Q. L. 10. 2. 2. 14.

Operation

Being a specialised item of Per Way equipment, this ballast plough was confined to operating in ballast trains and standing around in yards waiting for its next duty, both uses being ideal for operations on the average layout! The ballast trains would carry ballast whilst in transit to the work site or empty after having dropped the ballast. To add to the operational interest, the wagon had to be turned, depending on which direction the ballast was to be dropped, as this wagon had only one plough.



Who is not 'Cool'?

Robert Gorrell responds to Trevor Hodges question posed in In the Loop: Image Problem? What Image Problem? published in the October 2015 issue.

s a contributor to issue 2 of Australasian Model Railroad Magazine back in 1963, and a member of AMRA since 1955, what can I say to contributor Trevor Hodges [In the Loop: Image Problem? What Image Problem? AMRM Issue 314, October 2015 – Editor], who seems to find our hobby being perceived as uncool?

1. Memorise some of these names: Stirling Moss, Sir Malcolm Campbell, Walt Disney, Lord Brabazon, Earl Mountbatten, two English kings, King Peter of Yugoslavia, John Galsworthy, Alex Guinness, George Bernard Shaw, Neville Shute, Duke of Westminster, Admiral Halsey, the Sultan of Turkey, Air Marshall Sir John Salmon, almost the entire British House of Lords... and dozens more notables from the aristocracy, the literati, the cognoscenti and the intelligentsia. These good people are listed by name on page 348 in Roland Fuller's book, *The Bassett-Lowke Story*, published by New Cavendish Books, London in 1984. Prominent men,

including the above, were "customers of the London shop" of Bassett-Lowke, 112 High Holborn, London, during the first half of the 20th century. In those days, B-L of Northampton was a leading manufacturer of model trains, an upmarket rival to Hornby. They made and sold models from gauge 00 (Trix Twin) and gauges 0 and 1 up to a gauge of fifteen inches. Hopefully your all-knowing dinner guests will have heard of some of the above. Another customer was J Logie Baird who invented TV. Bassett-Lowke trains have always been highly collectible.

2. In the present era, check out *Model Railroader* for December 2007, December 2010, and February 2014. You'll find prominence given to an extensive HO layout in USA, 23ft × 124ft, the pride and joy of a popular entertainer whose "main hobby is model railroading." Awarded a CBE, and with an estimated worth of £115 million, Rod Stewart has performed to audiences estimated at up to 100,000 and has sold over 100 million records world-wide. Rod takes credit for building 80% of the layout himself, building kits while on tour. Rod now lives at Beverly Hills, and "his second layout at his UK home is based on

MAGAZINE

Britain's East Coast Main

Line."

3. Take a look at Classic Toy Trains, November 2015, with the front cover headed "Frank Sinatra's Layout." This issue devotes six pages to text and photos of Frank's O gauge layout, and his passion for Lionel. His interest began in the early 1940s when his boss, band leader Tommy Dorsey, showed Frank his own Lionel layout. Always most courteous, Frank was



forever dropping in at Lionel dealers to check stock, and when in London was yet another customer at the Bassett-Lowke shop. Stirling Moss, Alec Guinness, Rod Stewart, Frank Sinatra and Tommy Dorsey were never uncool – the exact opposite.

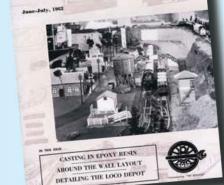
Peruse current issues of British monthlies such as Model Rail - 148 pages, Railway Modeller, 164 pages – this includes 76 pages of advertising from 200 retailers and manufacturers, stunning layouts in five different gauges, details of nationwide exhibitions, clubs, societies, open days, swapmeets, sales and fairs. The Hornby Magazine (it covers all makes) is yet another quality magazine, 164 pages every month. British dealers are competing with full-page ads pleading for stock - model trains of any description desperately needed to meet demand. Hornby's current catalogue is 140 glossy pages, their latest 00 Flying

Scotsman has 17 sound functions. In August 2015 The Times in London reports on Hornby Hobbies raising £15 million for expansion, soon to move their ever-popular Visitor Centre to a waterfront site in Ramsgate Harbour, the oldest harbour in Britain, the only Royal Harbour and a mecca for tourists. The equivalent here would be if Auscision opened their new shop at the Sydney Opera House!

5. One of Australia's leading authorities on antiques and collectibles is well-known author and publisher Alan Carter, of Cromer NSW. In 2003 ABC-TV chose Alan to host a series of interviews with people who are collectors. The show was called *Treasure Hunt*. Alan chose for the final weekly episode a subject he considered the most fascinating – vintage model trains. With a film crew he travelled up our way and spent a day filming an O gauge collection, mainly Hornby. The trains ran on pre-war tinplate track, at the Maleny Mini-Museum of Vintage Toy Trains. Over its eight-year life it was visited by thousands. Alas, we have moved, that building is now an art gallery. Until very recently, a residue of that TV series

remained on an ABC website. For the next 12 years you could read all about fifty different kinds of collectibles, each given its own page. No matter which topic you selected, the panel at the right-hand edge of the page remained on the screen as a fixture. It was headed "Alan's Treasure Tip". With a choice of 50 collectibles to promote, what did Alan tip? Stamps and Coins? Biscuit tins? Embroidery?





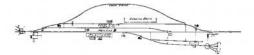
THE MAGAZINE DESIGNED FOR ALL RAILROAD HOBBYISTS

THE AUSTRALASIAN

Militaria? "There is a thriving market for vintage Hornby and Hornby Dublo model trains throughout the world. In Australia, a useful starting point is...." Alan promoted the HRCAA, and you can find the Hornby Railway Collectors Association on the AMRM website (www.australianmodelrailways) in the 2016 listing of Model Railway Clubs in Australia. On Alan Carter's current personal website the first item he pictures is a postwar Hornby O gauge clockwork 0-4-0T, with box. Some of the earlier examples are now up to 95 years old, and these little engines run... like clockwork! More favoured by collectors of Hornby are the three-rail electrics, both O and Dublo.

- 6. Proceeds from the first Sydney Model Railway Exhibition in the Sydney Town Hall in September 1963 were donated to a youth charity. The Sydney Morning Herald reported on my handing over of the cheque, nearly £1000. Entrance was 3/- (30¢) – today's entry at Liverpool is \$14.00. Using that as a guide to inflation, the gift in today's currency was equal to \$90,000. Queues ran up Druitt Street along George Street to St Andrew's Cathedral. This was before Reverend Awdry gave our hobby a boost with stories about Thomas and friends and before the massive growth in availability of toy and model trains across the world. Highly successful exhibitions now attract tens of thousands of happy spectators right across Australia – from babes in arms to folk in their nineties.
- 7. In Issue 2 (June/July 1963) AMRM was monochrome, 2/6 (25¢) and just 28 pages. Today's AMRM is in full colour and 80 pages. And immeasurably better. Our hobby is in full blossom. Disregard the journalists who have no hobby and empty lives: the best journalists in Australia are busy contributing to AMRM. Don't waste time with the sullen and the prejudiced – it was Dale Carnegie who wrote "A man convinced against his will is of the same opinion still." Chances are, Trevor, a dinner conversation with any of the model railway fraternity mentioned above would be infinitely more enjoyable than with those judgemental journalists, the ones you've encountered. Mix with winners, our hobby is full of them!

Editor's Note: It should also be made known that Robert, also known as Bob, was a long term auditor of this magazine's parent company. Not only did Bob guide us to meet and satisfy financial requirements, he was also a handy financial guide for what was a strong growth period for AMRM. Thanks Bob!



IN THE LOOP

The Commercial Imperative

Trevor Hodges talks about 'going commercial'.

ntil very recently my commercial involvement in the model railway hobby was limited to assembling two kits and the installation of a DCC decoder into a locomotive. These three instances were spread over approximately twenty years and across two different scales. All three resulted either from trying to help a friend, getting something I wanted in trade for the work, or a mixture of both. At the time of assembling the first of these kits. I had probably put together approximately ten steam locomotive kits, so I was reasonably proficient at the process. The kit was one of the Footplate Models range from DJH and, while it went together in a straightforward manner, an issue emerged for me that put paid to any long term plans I might have had to go into commercial kit assembly in a more serious way. The locomotive I was assembling was for a friend. He'd had the kit for a while and had been trying for some time, without much luck, to find someone to assemble it for him. My offer to put the kit together for him was as much motivated by doing a favour for a friend as it was by any profit motive on my part. I told him what I'd charge him to do the job and threw in a basic paint job for nothing. I picked the kit up from him one Saturday afternoon after a model railway club meeting where we had a short discussion about what some of his options were and, perhaps as importantly, what wasn't included in the price. It sat on my modelling bench for a week or so while I finished off the project I'd been working on, and then I decided it was time to take a look at the contents of the box, as I hadn't put this particular locomotive kit together before.

Now it's at this point in the story that I first noticed a difference in my approach to assembling this particular kit as compared to my normal modelling routine. It is my invariable, rather slack, practice to take a break between modelling projects to give myself a bit of time to ponder what I want to do next. If I was being brutally honest about modelling. I would have admit that I sometimes enjoy having modelled more than actually modelling. A great many of the tasks one has to carry out to successfully complete a project aren't terribly difficult, but they can be fairly repetitive and boring and occasionally downright unpleasant. Filing the cusp from the edge of brass etchings falls into this category for me. To allow my batteries to recharge a bit, I tend to give myself a week or so between projects, free from modelling, to contemplate the cupboard full of unbuilt kits I

have in my workshop and to do a little bit of dreaming about what I want to tackle next. Dreaming can be just as pleasant as doing, in my opinion, and it doesn't hurt to give yourself a bit of down time to allow for other activities. I'm writing this column in one such hiatus. However, as soon as I opened the box of my friend's locomotive kit I noticed a difference. There had been no break between projects this time: I was charging for this job so I needed to make a start. In that instant my hobby had become work. The kit was built and painted in a reasonable time frame and the owner was happy. I have no memory of what I charged at the time or what I did with the money beyond knowing that as this was 'train money' it would have been spent on trains. A small postscript to this story was that a couple of years later, I was contacted by someone my friend had contracted to install a DCC decoder into the locomotive; this was one of the things not included in the price. He couldn't work out how to separate the body from the chassis so he could install the decoder. It occurred to me at the time that the owner of the locomotive was going to a heck a of lot of trouble and expense to get an operating model and that if he was willing to go to all this trouble, then there might be some space in the market for more r-t-r HO models. Things have changed a bit since then...

It was about fifteen years before I assembled another kit as a commercial venture and this time it was a carriage. Unlike the locomotive kit, I'd never assembled one of the particular types of kits that was the subject of this build before. It was of the 'mixed' media variety of urethane castings with white metal and brass details. I've assembled plenty of urethane mixed media kits, but never a passenger carriage from this range. The friend I was assembling the model for owned a kit manufacturing company and, as a side-line, he'd gone into assembling his own kits for customers. His side-line had grown to the point where he was snowed under with orders and couldn't keep up with demand, so I offered to help him out for the same amount he was charging his customers. I assembled the kit for him, but it was a bit of a flop as a commercial venture. I worked out pretty quickly why he was snowed under with work: he wasn't charging anywhere near enough to assemble the kits, paying himself a rate that would have been considered stingy by anyself-respecting sweat shop.

Continued on page 30

In the Loop

Continued from page 29

However, the problem wasn't confined to the sweat shop rates alone: I just can't stop myself tinkering as I build a kit. I consider a kit a box of potential, not a pre-ordained sequence of building steps. I almost never build a kit as the manufacturer intended and I would rather listen to Justin Bieber singing than read the instructions from start to finish before commencing work, as is invariably recommended by manufacturers. I never read instructions for anything, which is why I still can't get my Betamax VCR to work... As I built the kit I altered the parts, added extra bracing, redesigned the way the body was held to the base and deviated from the instruction's suggested method for assembling the bogies. In other words, I built the kit as if I was building it for myself, where time frames have no meaning. It took me forever and I probably ended up earning \$3.00 an hour for my work. This wasn't such an issue; after all, I was helping out a friend, but then I had to hand the thing over to him when it was finished. All that work and I didn't even get to keep the model!

My third foray into the commercial side of the hobby involved recently fitting a DCC sound decoder into a brass r-t-r locomotive for the same friend for whom I'd built the passenger carriage. I'd already completed the same project on my own locomotive and was able to complete the job fairly quickly and efficiently as I'd walked the path before. I have nothing to complain about with this venture and it was a good outcome for both of us as no money changed hands. I got a few kits from his range for doing the job and he got a decoder installed in his locomotive; a most satisfactory arrangement. If there was anything that went 'wrong', it was that installing the decoder into his locomotive was a breeze compared to installing mine. As I installed the decoder in my locomotive I managed to blow six LEDs in one end, which all had to be replaced at considerable expense; these were of the variety that come in packs of two for an exorbitant sum. So my mistake had taught me a lesson, but one I could only apply to someone else's locomotive. The owner thought the final result of the installation was outstanding, so this was gratifying. However, he's sold the business since then, so I don't know what inducements he's going to offer me if he ever wants another decoder installed!

I once heard an interview with a woman who ran a cleaning company which specialised in individualised cleaning of clients' homes. She employed dozens of cleaners, but also continued to clean herself, because she said she loved the work; she was good at it, took pride in the result and always walked away from each house happy, knowing the owner was in for a lovely surprise when

they came home. However, in the interview she revealed that she hated cleaning her own home and tended to avoid putting in as much effort as she should and in fact cleaned her clients' homes far more thoroughly than her own. My limited involvement in the commercial side of the hobby has taught me that it takes a real business approach if you're going to make any money out of assembling kits and the same probably applies to any business, model railway related or otherwise. I enjoy modelling most of the time and one of the elements I find most fulfilling is that I can take it wherever I like at any pace I choose: scale, prototype, gauge, method of control, layout design and the way I switch my points, and many other options, all happily depend on my individual choices and prejudices. I can put as much or as little effort into any aspect of the hobby I like, completely at my own discretion. However, the minute I start charging for the same work the calculus changes. When I build something for someone for payment, I'm suddenly in the mirror reverse situation to the woman with her cleaning business; an activity I love to do for myself becomes a chore when I'm doing it for money. Why is this? Because I model as a leisure pursuit; as soon as you try making money from assembling kits it's no longer leisure. I know a couple of people who assemble kits for money and their approach is all business; they build to a system, often in batches and they never tinker. I admire them, but having to model using such an approach would drive me out of the hobby in no time. When I assembled those kits for money I wandered all over the shop as I tried things out, redesigned the assembly process and added components of my own choosing. I took a hobbyist's approach, but this was supposed to be a business and I'm quite proud of the fact that I failed abysmally at it. This is not to suggest that there isn't money to be made from the hobby, but I believe that it takes a particular type of approach to do so and I'm simply not a businessman, and don't intend becoming one.

If my experience of the commercial side of the hobby is anything to go by, then we enter the commercial arena at our own peril. I know several manufacturers past and present and I don't know any of them who make a living out of selling their wares to the modelling fraternity; a few have barely been able to make their enterprise break even and this is just among the ones I know. Because of our relatively tiny market even the bigger manufacturers don't make huge profits. Some manufacturers have told me they often keep going more as a service to a hobby they love than because of the huge sums to be made. One friend in the business once told me a story of a customer who had rung and asked to be put through to their sales department. My friend is the sales department; plus CEO, engineering department, PR, customer

relations, quality control and chief bottle washer. I've literally watched him sitting at his kitchen table at eleven o'clock at night, packing the components for his kits into boxes for sale at a model railway event he was attending the next day. He has a full-time job and a family and this is a hobby business for him in both senses of that word; a business that's a bit of a hobby in itself and a business that involves his hobby. Scratch any of our manufacturers much below the surface and I'm sure they could relate similar stories. I suppose in a round-about way I write this column because a past, wellknown AMRM columnist (who still sometimes writes for AMRM) decided a number of years ago to go into producing HO r-t-r locomotives and rolling stock. He got busy and the columns became very irregular and I was silly enough to eventually offer to see what I could do to fill the gap. In the end what keeps me out of the commercial side of the hobby is the feeling that if I turn my hobby into a business then I'd need another hobby to take my mind off the business.

I think we, as a group, owe those who take the risk of going into manufacturing and retailing the items that make our hobby possible a great debt of gratitude. Just as with the hobby itself, the commercial side has seen huge changes and developments over the past couple of decades. We are all the beneficiaries of these changes, but the amount of money we have at stake is miniscule while we wait for a shipment of locomotives to make its way from China to one of our ports. While we might have a few hundred dollars tied up waiting for the arrival of a model, imagine how much the manufacturer has invested. There are no massive corporations with deep pockets backing these projects; they are carried through by people just like us, with families, mortgages and children who need to be fed and educated.

So the next time you jump online and whinge about how long it's taking for a model to arrive, or front a manufacturer at a show to complain that one of your models arrived with a handrail detached (that took you 30 seconds to re-attach), spare a thought for those who risked large sums of their own money to bring the models to you and don't begrudge them a reasonable return on their investment. If something is genuinely amiss or you're the victim of fraud, you have a right to complain and seek redress, but none of us are the losers from continuing civility: we're all in this together. I can remember a time well before the Chinese revolution (the manufacturing one, not the political one!) when pretty much all model railway items were kits and some of them left quite a bit to be desired. For me there wasn't too much golden about this era and even though we managed to produce some wonderful models, it might pay dividends to reflect on just how good we've got it these days.



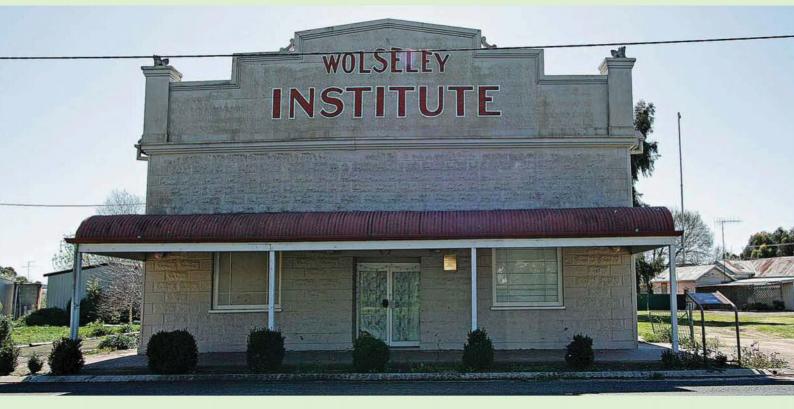


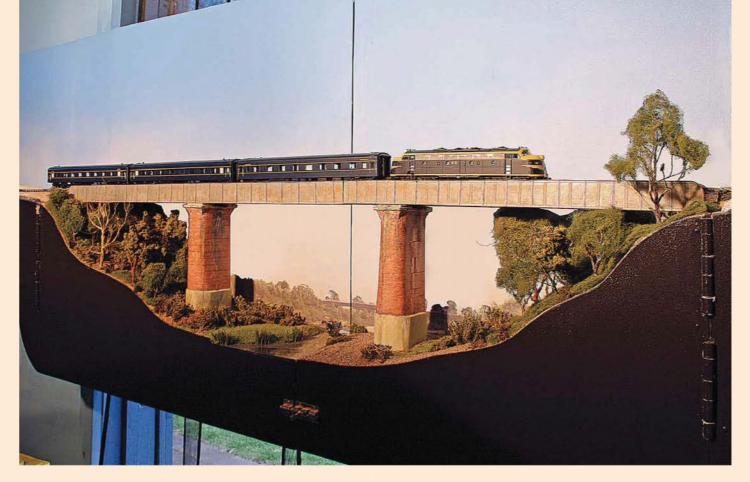
Wolseley

Maikha Ly continues his photographic odyssey through outback South Australia.

The rustic store is a common sight on model railway layouts, but not often modelled is a store that is part of a larger building. The old general store at Wolseley, on the corner of Railway Terrace and Garnet St, is part of a bigger complex that would make an interesting model, whether scratchbuilt or converted from commercially available models. More of this interesting commercial structure can be seen at http://tinyurl.com/o2vkcza.

The institute building is also a common feature of country towns. While most are now abandoned or repurposed, they were once a very important part of the cultural life of the areas. While many were cheaply built of timber, corrugated iron or, latterly, fibro-cement sheeting, some were more imposing, as befits the civic pride they once engendered. However, all is not always as it seems, as the imposing stone frontage of the Wolseley Institute, situated in Railway Terrace, next door to the building illustrated above, stands in front of a more modest timber clad structure, more of which can be seen at http://tinyurl.com/nrbxllu.





Build a Scenicked Swinging Access Flap

David Bartle builds a bridge scene with a difference to allow entrance to his layout area. Photos by the author.

aining access into the centre of an oval-shaped continuous run layout normally involves either a duck-under or a movable/removable section. I decided to have an opening bridge as the access, but I didn't want the bridge to be spanning a gap in the scenery, so I designed a complete scenic section to reach across the gap.

This section would have to be wide enough to clear the double door entrance into the shed. Not wanting to restrict access, I came up with a 'barn door' arrangement which incorporated a bridge, river and backscene.

The scene is based on the Avon River, which flows on the opposite side of the road to where I live in Victoria. The real railway bridge has three times as many pylons and spans an area correspondingly larger. I have tried to capture the essence of the real bridge setting while allowing for the very small space available to me.

The scene is only 200mm deep so, to give the impression of more depth, a photograph of the upstream road bridge, taken from the railway bridge, is pasted on the backscene and this is surprisingly effective, particularly when viewed at river level (seated position).

Both panels are made from a light, hardwood frame glued and screwed, then covered with 3mm thick three-ply sheet. It is quite strong when completed.

I used two heavy 120mm long hinges on each side, so the end formers had to be 12mm thick five-ply to secure the heavy screws they required. One panel is secured to the top of the door frame by a bolt and butterfly nut for stability, the other panel is in turn secured to the first panel by a magnet (at the top) and a sloped wooden ledge and sliding bolt at the bottom.

The track was laid across the joins and cut using a cutting wheel once the sleepers were glued to the track bed. We've had an exceptionally wet season this year and I have had to recut the rail due to the wood swelling slightly, but (so far) I have not had to do it again.

To ensure electrical continuity, a wire is run from the fixed layout to the swinging panels at the hinge and I have had no problem with the trains running across the section.

I love watching the trains run slowly over the bridge, particularly looking from river bed level. The scenery is approximately three-quarters finished, just some grasses, reeds and shrubs to go. Then a 4WD on the stones at the base of the bridge pillar, I think, and some people with dogs in the water!



The left side of the opening flap in the open position, allowing adequate access for normal activities.



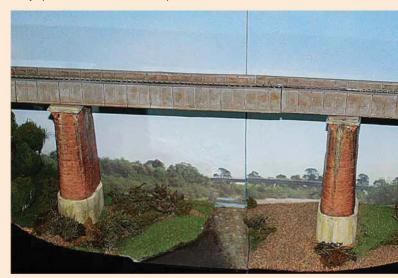
Both sides of the flap open, allowing the full width of the double door into the room to be utilised.



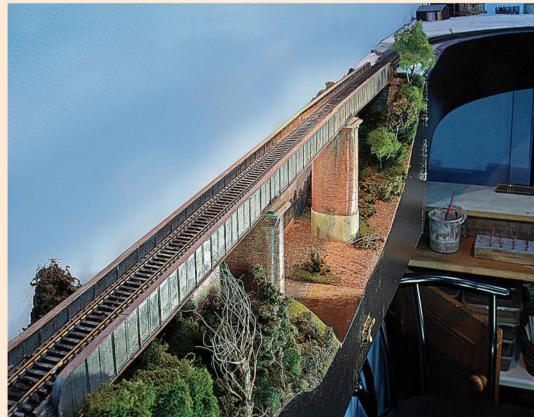
 $Details\ of\ the\ hinges\ and\ construction\ of\ the\ flap\ itself.$



The flap is held closed with a simple bolt.



The split between the two halves of the flap. The bridge is split unobtrusively too.



The narrow 'scene on a shelf' disguising the entrance to the layout room.

GALLERY

An Early NSWGR O Scale Outdoor Layout

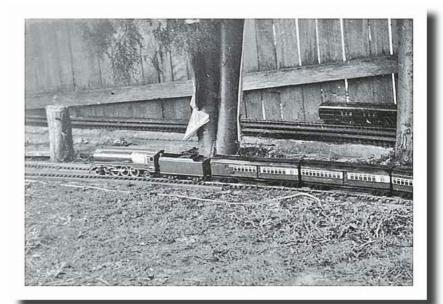
Les Fordham presents a gallery of photos from a long-lost NSW garden railway in Sydney. Photos from the author's collection.

he occasional mention of the earlier days of modelling in AMRM prompted me to dig out the photographs printed here of a garden railway that was operating in the 1950s.

This extensive garden railway was owned by a Mr Rhodes Brown, who lived in the Sydney suburb of Cheltenham. My earliest recollections of this railway were when my father delivered to the owner lengths of Austral bronze rail that was commonly used at that time.

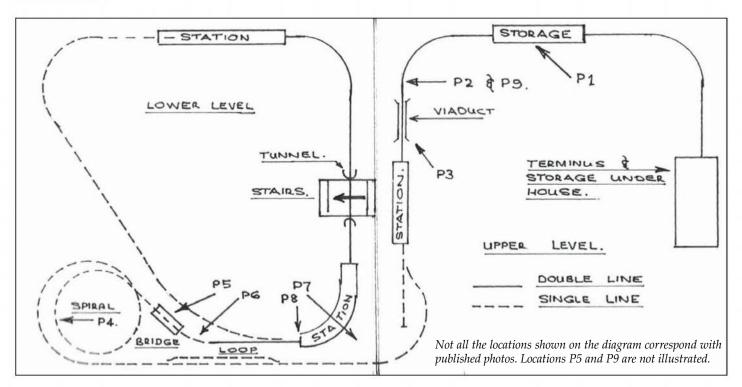
The accompanying diagram with photo references hopefully will give some idea of the size and quality of this garden railway. The layout was O scale, three-rail powered on timber sleepers, but I cannot recollect what voltage the layout operated on. Track extended from a room under the house around the garden on a ground level track. The yard was terraced and the line descended in a spiral to reach the lower level of the yard that was about 4' (1.2m) below the top level. The track had a concrete base that held a timber batten that then had wooden sleepers and the rail affixed to it. The total length of run was close to 150' (45m) with various sections of double and single line. Unfortunately, I do not have a detailed track plan of the line, but have drawn a diagram of the shape of the line and a reference to the photographs. With this length of run, trains took about 15 minutes to travel from the terminal yard under the house to the last station on the line. From memory, the final section of track shown dotted was never completed.

The diagram illustrates the basic design and numbers show where the photographs refer to. After the train left the terminus under the house on the double-track section of line, it took a 90° curve, then ran down part of the length of the back yard past a number of storage sidings. The line then entered a left-hand 90° curve then proceeded across the yard. At this point the line was at the edge where the ground dropped away to a lower terrace about 3' to 4' below. On the run





Streamlined 3802 hauls what may be a red and cream set of L cars past the outdoor storage sidings after leaving the 'city' terminus under the house.



across it crossed a concrete viaduct before entering a station where the double line ended. There was a siding straight ahead, and a single-track main line curved away to the left before curving around to run down the other fence line. The single track that went straight ahead was the imaginary end of suburban trains and an electric set and parcel vans were terminated there. After passing through a crossing loop, the line then entered a spiral to drop down several feet before coming out onto a girder bridge with double-line track to a large station on the lower level. This station had a turntable with loco sidings, and a number of sidings and loops, with space left for platforms. From here the line was on the lower level and the double track passed through a tunnel under a set of stairs that led down from the upper level to the lower yard level. A number of the photos show some early NSWGR locos displayed on the track at the top of the stairs.

The line then continued on to the next station yard before becoming single line for the run around the back area of the yard. I don't think all of this section of track was completed, unfortunately.

The line was operated with models of NSWGR locomotives and rolling stock, which, even in these old photographs from about 1954, show a very good standard of modelling. Many photos are shown with my loco, 3802, on various trains around the line.

One weekend there were running a number of models of the older NSWGR locos that were displayed on the NSWGR layout at the Royal Easter Show (see Jim Longworth's NSWGR's O Scale Model Railways, AMRM Issue 273, December 2008). In 1955 or 1956 the New South Wales Railways had altered the layout displayed at the Royal Easter Show to include a high level loop at the back of the layout where these older locos and trains ran. These locos were also run on the outdoor layout that is the subject of this article.

Unfortunately, the owner passed away and the railway fell into disuse. In the early 1960s, a couple of high school friends and I used to visit the layout, but never really managed to get it operating. As can be seen from the photos included, it was a large model and the maintenance would have been a major chore. It is just lucky that I have managed to save a few photos of what was a great model to see operating. If anyone else has photos or information they would like to share on this layout I would be pleased to hear from them.

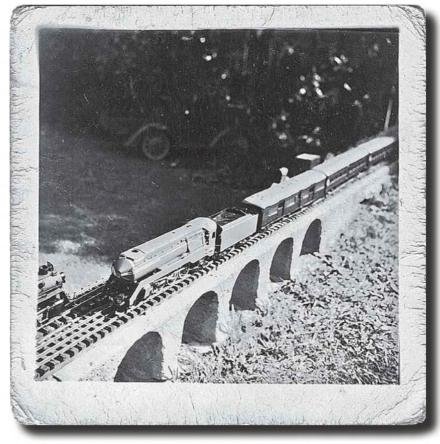


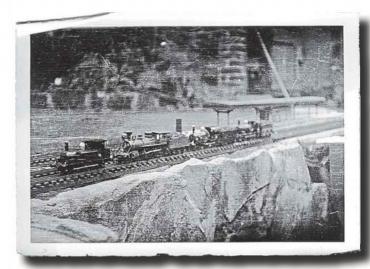


A 'blackout' (no electric headlight) 55 class hauls a train of empty four-wheel hoppers away from the city on the approach to the arched viaduct.



Still in the 'suburban' area after leaving the 'city' terminus under the house and having passed through the outdoor storage sidings, green streamlined 3802, hauling a mail train, crosses the arched viaduct just before the first major station on the line.



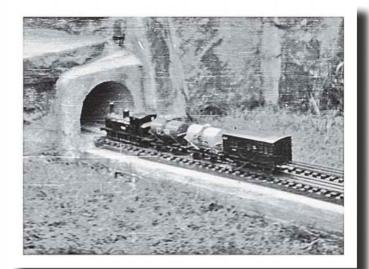


A line up of early locomotives of the 67, 105, 79 and 93 classes stands, facing towards the 'city', at the 'suburban' station at the top of the stairs between the top and bottom sections of the garden.





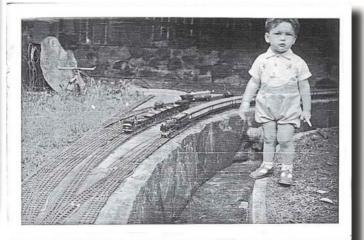
The mail train hauled by green 3802 is now negotiating the spiral down to the lower section of the backyard. The cars are painted in the pre-war version of Tuscan and russet, with the FS carriage being fully lined and having the russet on the letterboard, as well as on the window band.







A green 'roundtop' 36 hauling an N car set in Newcastle Express red and cream colours has negotiated the spiral and now crosses the girder bridge, heading towards the 'country' end of the layout.





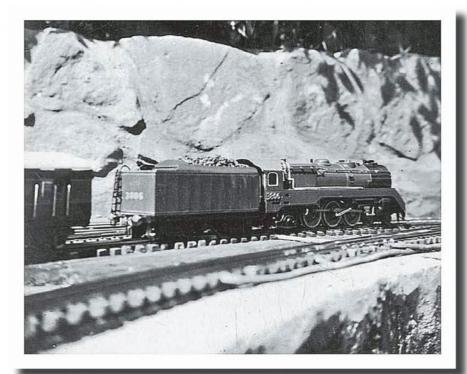
The author's brother, Phillip Fordham, poses next to the first 'country' station as the 36 roars through with the 'Newcastle Express' set of red and cream N cars.

No.74 of the 67, later N class, hauls a short train of tank cars, trailed by an HG four-wheel goods brake van. The train is heading away from the first 'country' station and is about to enter the tunnel under the steps between the two levels of the garden. The prototype No.74 had a relatively short life on the NSWGR, entering service hauling Sydney suburban trains in July 1875 and withdrawn fifteen years later in 1890. It was then sold to contractors, Kerle and Kerle, for construction work on the Lismore to Tweed railway in 1893, then went to Yamba to work for the Harbours and Rivers Branch of the Public Works Department in 1897. From there it went to Port Kembla in 1906. It was renumbered PWD25 at Port Kembla in 1916, where it was used until 1940. The older locomotives were a source of interest to the photographer and a number of shots were taken of each locomotive, some of which are reproduced here.

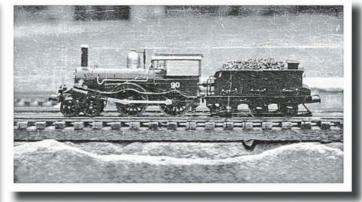


An engine change takes place at the 'city' end of the first country station as the first of the nonstreamlined 38 class, and the first to be painted green, 3806, backs onto the red and cream N

set for the run to the terminus under the house.



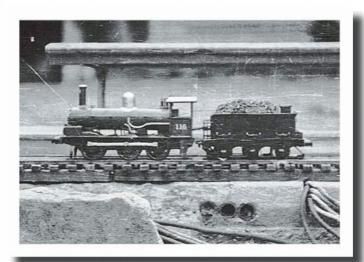


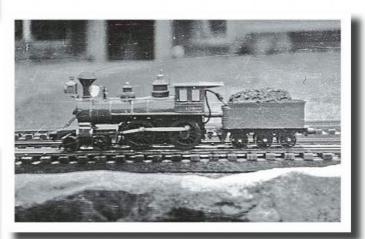


This is No.90 of the 79 class, reclassified as a C class by Thow in 1889, converted to a CC class 4-4-2T in June 1897 and then renumbered 1305 in 1924. It was withdrawn from service in August 1924.



There appears to have been a mishap at the 'city' end of the first 'country' station, a 4-6-2 version of 5701 has come to grief. The image also shows details of track construction and how the layout was wired.





A model of the first American-built passenger locomotive on the system, No.105. The locomotive entered service October 1877 and was later grouped with bogie-tendered American 4-4-0 No.130 as the U class. It was withdrawn in July 1901 and scrapped in 1904.

Here is No.116 of the 93 class, later classified A class by Thow, rebuilt with a Belpaire boiler and enclosed cab in the early years of the 20th century and renumbered 1921 during Lucy's 1924 overhaul of the locomotive numbering system. The prototype was withdrawn in February 1932.

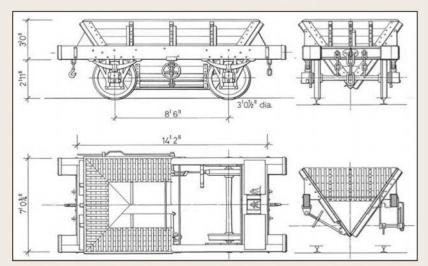


The official portrait photo of an HBW, taken in 1930. The number is indistinguishable, but interestingly it has a private wagon registration plate, perhaps indicating temporary ownership by the Railway Council. This one has split-spoke wheels and Turton buffers fitted to baseplates. The operating wheel for the underfloor hopper door is clearly visible, as are the triangular metal supports for the hopper at the sides and ends. As with all wagons of this type, the coupler is a link type (the central link being of 'dogbone' form), and there is a through air pipe, but no air brakes.

PROTOTYPE FILE

The NSWGR HBW Four-wheel Ballast Hopper

Ian Dunn outlines the 'life and times' of the NSWGR's first ballast hoppers.



An extract from Greg Edwards' drawing of the HBW hopper, printed to HO scale. The complete O (7mm) scale sheet may be obtained from Data Sheets: datashet@grapevine.com.au



W169 at the end of a long service life lies on a short length of track in the grass at Grenfell. This shows the handbrake side, with two-shoe apparatus. Turton buffers and steel hopper supports are visible, and this one has standard, eight-spoke wheels. Photo by Howard Armstrong.

allast wagons were an essential item of rolling stock from the initiation of the railways. In NSW, the first flat-top wagons were in service before the opening of the Sydney to Parramatta railway in 1855. Such wagons, however, were part of a labour-intensive and slow process, and in 1886 a Thomas Rodger of New Zealand patented a hopper wagon for use with a ballast plough attached under a brake van. Rodger offered his patent to the NSWGR for £5000, subsequently reduced to £4000, but internal railway politics engendered an official lack of interest. The system allowed much faster and more accurate laying of ballast, and at ministerial direction three Hudson ballast wagons were converted to Rodger's hopper design and mated to a plough-fitted van for a trial in 1887. The trial was very successful, but departmental hostility and a patent counter-claim again hindered adoption. It was not until new Commissioner Eddy saw the design in operation in New Zealand in 1890 that interest was rekindled, and at the instigation of D. H. Neale another trial was arranged. In May 1890, nine further Hudson ballast flats were converted to hoppers and four months later fitted with "strong drawgear". Again, the result of the trial was hailed as excellent. This time, the Commissioners did purchase the patent and immediately set to instituting Rodger's system of ballast distribution. The converted wagons were 1234, 1240, 1247, 1407, 1410, 1422, 3180, 3213, 3214, 3220 and 6108, later coded HBW and transferred to the W register of works vehicles.

Contracts were let to Hudson Bros (60 vehicles – Nos.9347-9406), Ritchie Bros (142 vehicles – 8846-8915; 9287-9346; 9551-9562) and Rodgers of Newcastle (no connection to the former patent holder) for 75 hoppers (8821-8845; 9031-9080), a total of 277 new ballast hoppers acquired between January and November 1891. Additional hopper wagons were purchased in 1891-92, second-hand from contractors. Hudson Brothers received a contract to convert forty D wagons to ballast hoppers, and Ritchie Brothers received an identical contract. By 1894 there were 377 "hopper ballast wagons", a type subsequently coded BH, and later HBW. They were allocated to the W roster of Way and Works vehicles, when that list-

ing was instituted in 1914, and received random numbers between W1 and W1080.

As built to Drawing 2125, signed by D. H. Neale on 29 October 1890, the Rodger's ballast hopper was an all-timber vehicle, of 8'6" wheelbase and 14'2" over headstocks. Dumb buffers added a further 2'10" to this length, making the solebars 17'0" long. The underframe was simply a rectangle of 6" x 12" timber – solebars and headstocks - with two 3½" x 10" transverse members, 13" inboard from each headstock. Central longitudinals were obviously not possible. Four iron plates, 1'8" x 2'6" x 1/8", were bolted to the top of the underframe at the corners. The hopper, of triangular section, was 7'0" wide and 13'0" long at the top (both measurements internal), lined inside down to solebar level with 2" x 1/8" vertical steel strips at 41/2" centres. The lower part of the hopper was lined with 1/8" sheet iron. The planking was of 81/4" x 2" hardwood. Three timber verticals, 4" x 3" section, were affixed to each side and three to each end, and bolted to these were triangular support blocks of timber, 2½" thick, fitted between the hopper and the underframe, one at each end and three on each side. Many vehicles had steel supports instead of timber, formed of sheet and angle riveted together. These vehicles had three supports along the sides also, but two at each end on two, not three, vertical timbers. While the hopper was not removable in the ordinary course of traffic (unlike the contemporaneous coal hoppers), it was not fixed into the underframe and could be removed for maintenance. Overall width was 7'8½", and the height above rail level was 5'11", while the top of the hopper was 2'0" above the top of the solebar; the bottom of the hopper was 6" above rail level. Both eight-spoke cast and split-spoke wrought wheels of 3'0½" diameter were used, with the axles running in 8" x 4" journals. There was a lever handbrake operating on one side only; the GA drawing shows this as operating on both wheels. NSWGR Outline Diagram 103, signed by W. Thow, indicates a brake on one wheel only; no photos of this latter arrangement are known.

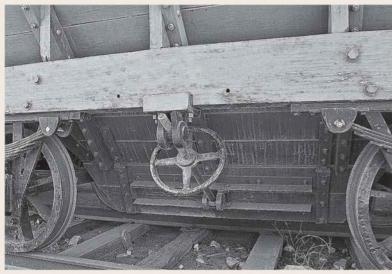
Unlike most other vehicles, the HBW was never converted to the NSWGR standard wheel handbrake, nor was it ever fitted with Westinghouse brakes, although a through pipe was fitted to allow the wagons to operate in air-braked trains. None of the class was ever auto-coupled. On the side opposite the handbrake gear, a wheel operated on a screw spindle to permit a trap door on that side of the hopper bottom to be opened, so allowing the ballast to flow forth in a regulated manner. Diagram 103 gave a tare mass of 5t 0c 2q and a capacity of 6½ tons. A photo of one vehicle in 1930 indicates a tare of 5t 16c 1q, most of the additional mass no doubt occasioned by the cast metal buffers.



HBW W39 in the early 1960s. It differs significantly from the current, preserved W39, having standard Cammell buffers on packing pieces and triangular timber supports at the ends of the hopper. By this stage, the internal, vertical ribbing has been removed. Photo from the Ian Dunn collection.



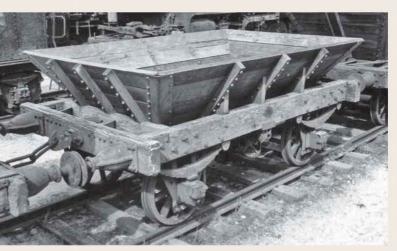
The 'business' side of W169, showing the operating wheel for the hopper flap. Photo by Howard Armstrong



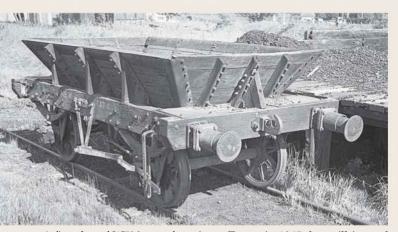
The nub of the Rodger's patent: the opening flap at the bottom of the hopper and its attendant operating screw and handwheel. Photo by John S. Glastonbury.



An end view of HBW W169, showing the two steel hopper supports in place of the single timber one. A modicum of strengthening has been undertaken by the fitting of two full-length, longitudinal steel rods, passing through large steel plates surrounding the drawhook on each headstock. These were not part of the original design. Photo by Howard Armstrong.



The preserved ballast hopper, W39, at Thirlmere in the early 1980s. It displays notable deviations from what it purports to be – a Ritchie-built hopper of 1891. Photo by Howard Armstrong.



A fine shot of W720 out of service at Tumut in 1965, but still in good condition. As can be seen, the HBW coding is painted on the solebar, and another inscription notes that it has been examined at Cootamundra on 5 February 1959. It entered service in April 1891 as Hopper Ballast Wagon 9374, built by Hudson Bros for a cost of £99/2/2, and was transferred to the W register in 1914. It was officially withdrawn from service in March 1962, but does not seem very long out of service in this view. Informed sources indicate that it continued in use after condemnation, transporting ash from Tumut loco to the sites of washaways on the Batlow line. Noteworthy at this late date are the split-spoke wheels and the capacity of only 4t. As built, it had a tare of 5t 7 cwt and a capacity of 6t 10 cwt. Packed-out Cammell buffers are fitted and the headstocks have an interesting chamfer at the ends. The handbrake is hard on, and the hose for the through air pipe is missing. Photo by Howard Armstrong



Six years later, the 23 class are still inhabiting Binnaway depot, as are the HBW ash wagons. Here is one with steel hopper supports, awaiting the contents being shovelled out of the locomotive's smokebox. An HG brake van awaits its next call to duty in the background. Photo by C. C. Singleton.

A later Diagram, 102, signed by E. E. Lucy in 1923, illustrates a significantly different vehicle: the handbrake now operated on both wheels of one side (as shown on the original GA drawing), the overall height was 6'1", the bottom of the hopper was 8" above rail level, the internal width was 7'9", and the hopper length was 13'3" (12'5" internal), overhanging the headstocks, which were 12'11½" apart. Length over standard Turton buffers was 16'7½". The support blocks at the ends were omitted. Tare was now 5t 17cwt and capacity 10 tons, a significant rise, probably indicating heavier springs. It is possible that the vehicles depicted in this diagram came from the Public Works Department.

The HBW hoppers led a low-profile and generally low-speed life, but their work was hard and they suffered from the odd knock. There were frequent shop orders for repairs to hopper ballast wagons "detached" (derailed). One was destroyed in 1899 and replaced by a vehicle built to the original drawing, retraced as Drawing 7377, in mid-1900, still with dumb buffers at that stage. A note dated 8 February 1911 on Drawing 7377 indicates that "300 hoppers built 1891" were to be altered, probably referring to the substitution of Turton buffers for the previously standard 'dumb' buffers. The buffer replacement involved new headstocks of standard width, the old ones being just 5'10" long to fit between the extended solebars.

The 1927 'General Appendix' forbade the conveyance of HBW wagons by mixed, goods or pick-up trains, except on the Illawarra line, without the authorisation of the Chief Traffic Manager. A special exception was made for ballast wagons and hoppers W386, W463, W679, W964 and W976, which could be attached to such trains between Condobolin and Ivanhoe, Byrock and Brewarrina, and Bourke and Bourke Stockyards, for the conveyance and spreading of loco ash in the per-way. Speed of ballast trains on unfenced lines was limited to 18mph.

Although they were superseded by the bogie BBH and later BBW hoppers, some HBW hoppers remained in service until the mid-1960s. Fifty-eight were transferred to the Railway Council (a body formed to construct the Kyogle to Brisbane Uniform Gauge Railway) between 1925 and 1931; most returned to the NSWGR, a few did not. A number were transferred to the L register of vehicles as loco ash and loco coal wagons, and these were the last survivors. Apart from early condemnations due to accident casualties, there were steady withdrawals from the mid-1920s, with nineteen lasting until 1962; the final survivors on the register were W810 (condemned as L1121 in Dec 68) and W86 (Mar 69). An HBW purporting to be Ritchie-built W39 is preserved by Transport Heritage NSW, showing some modification from standard, and W169, in poor condition, is included in the Dorrigo Museum collection.

Information on the origin of these vehicles was sourced from notes by Don Estell. Other information from State Rail diagrams, drawings, photos and records held at State Archives, Kingswood.



Photos of HBW hoppers in use are very rare. This one shows five HBW and two D wagons in use as ash hoppers in Binnaway depot in 1933. The nearest HBW has timber hopper supports, and still has safety chains as well as its link coupler, no

doubt in deference to its unbraked status. These vehicles would have been used in ash ballasting of the pioneer lines radiating from Binnaway to Gwabegar, Merrygoen and Werris Creek. On No.2 coal road is a 23 class Baldwin 4-6-0 with a four-wheel water gin. Photo by O. B. Bolton

EXTENDED REVIEW

Models 'N More NSWGR Elevated Timber Signal Box

James McInerney takes an in-depth look at this HO scale laser-cut kit. Photos by the author, unless otherwise indicated.

The advent of relatively cheap laser-cutting machines has resulted in a number of producers of laser-cut building kits, some of which have been reviewed in these pages in the past. The technology allows economical production of short-run kits, ideal for items such as buildings, which are unlikely ever to generate enough demand to have large ranges of buildings produced by the Chinese factories catering to the r-t-r market (though we once said that about locomotives and rolling stock...) The local 'cottage' producers have pretty much moved out of locomotives and rolling stock and are now concentrating on providing lineside items to the market.

The laser-cutting technology does not allow absolutely everything on a building to be reproduced and, as most of the producers of these kits only include laser-cut timber or card, the basic kit often does not include all the details needed to complete a model to the standard I prefer. Coupled with the oft-expressed desire by AMRM's General Manager, Bob Gallagher, that I write some articles that describe the alterations I make to most kits I assemble, that can be indexed as articles in the magazine, rather than buried in the Review section, this piece is the result!



NSWGR Elevated Timber Signal Box kit (M00088) by Models 'N More, PO Box 7511, South Penrith 2750. Ph: 0412 55 66 89. Website: modelsnmore.com.au. Price: \$54.00.

Prototype

This HO scale laser-cut timber, MDF and card kit is based on a series of signal boxes of various sizes, constructed by the NSWGR between 1912 and 1936, located at a number of mainline locations bounded by Junee, Wallerawang and Maitland. The kit is marketed as 'Liverpool' signal box, but as I don't have any dimensions for the box at Liverpool, I can't say if it is accurately dimensioned or not to that particular box.

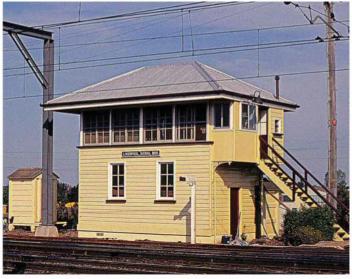
However, I do have Data Sheet drawing No.S12 'NSWR Elevated Timber Signal Box c.1912', which was based on official drawings of the similar box at North Strathfield. The kit is slightly larger, in all dimensions, including window sizes, than the box depicted in the drawing.

Building the Model

The kit consists of pre-cut parts consisting of an MDF shell, timber cladding, plus card and MDF details. There is also a styrene ladder and a CD with the instructions on it. The instructions are very sparse and somewhat hard to follow and there are no photos of full-size boxes, Liverpool or otherwise. However, basic construction is fairly self-evident and was not at all difficult, though I gave up trying to figure out how the toilet section was supposed to be assembled and ended up using the bits I could identify and scratchbuilding the rest. While all the basic elements of the building are provided in the kit, there are many



While this is not the same type of signal box featured in this article, this John Shields photograph of Dog Trap signal box shows the standard NSWGR 'stone' colour scheme as applied to signal boxes. Dog Trap box controlled the level crossing just to the west of Granville where Woodville Road (once known as Dog Trap Road) crossed the line prior to the opening of the current bridge over the road in 1967.



The prototype Liverpool signal box, photographed by Wayne Eade on Sunday, 23 November 1980, shortly after repainting from the pale green colour scheme it had carried for around two decades.

EXTENDED REVIEW



The kit, built as per the manufacturer's intentions. Photo by Matt Sawtell.



The box partially assembled.

The barge boards have been added to the roof, but the gutters and roof cladding are yet to be assembled. The blank edges to the brick foundation are prominent.



The box ready for painting and final detailing.

The roof cladding, weather strips and gutters have been added and the foundation brickwork has been filled and scribed on the blank edges. The windows and ladder/handrail assembly have been temporarily fitted for the photo.

details of the building not provided, or allowed for, such as corner posts, window and door architraves, window sills, gutters, downpipes, as well as the cover strips dividing the window sections and for the transition section from weatherboards to the brick foundation. Also, the roof ridge cover strips provided were made from corrugated material, whereas the prototype had plain sheet, so this was replaced during construction.

Basic Construction

I started by gluing the basic MDF box together with PVA, first gluing one long wall to its adjacent short wall, then the other long and short wall, so there are two 'L'-shaped pieces once the glue sets. I used a set square (one can also use the base) to keep everything square while the glue set. (Beware, my base wasn't accurately cut and had to be trimmed to fit and keep everything 'square'.)

While the long side/end assemblies are drying, make a start on the roof. Glue the long ridge support down the marked line on the ceiling (plain or 'toilet' version, depending on which one you are doing), using the two short cross pieces to hold it in place while it dries. When it is dry, glue the two short pieces in place.

While the roof sub-assembly is drying, glue the first floor to one of the L-shaped sub-assemblies, using the other held in place with a rubber band to align the floor properly. When the glue is dry, glue the other L-shaped sub-assembly to the first.

While waiting for the glue to dry on the first floor, glue the first long roof support piece to the roof sub-assembly. Alternate between gluing the two sub-assemblies, so that there is no temptation to go too fast

and attempt to add another part before the first is dry.

The last thing to add to the box sub-assembly before starting on the cladding is the base, which, as mentioned above, needs to have its lugs trimmed. On mine, two of the end lugs were out of alignment. The section to be removed from a lug was marked with a pencil and sawn off with a razor saw, trimmed up with a modelling blade.

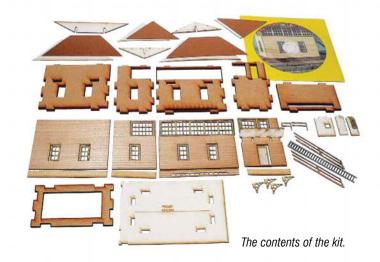
Once both box and roof subassemblies are dry, the two parts should be test fitted for alignment of the lugs. Once more mine was out of alignment and needed to be trimmed slightly before it would sit snugly in place. Don't glue the roof sub-assembly to the box subassembly, it is easier to construct and paint these parts while they separate.

Next the timber cladding is added to the box, and the bargeboards and roof sheeting to the roof.

There are no corner posts provided in the kit design. As the corner posts are visually very prominent on the real thing and the kit, as designed, has rather untidy edges, I used some Northeastern timber strips, 6" x 6" x 19', to represent them. First step is to glue on the end cladding pieces, trimming them, if necessary, to accommodate the 6" x 6" posts. (I also added the window and door frames, plus the door to the interlocking room, at this stage, as they were all to be painted NSWGR Medium Stone.)

I then added the brick base to all four sides of the building. There is no detail on the ends of the brick etching (Photo 1), so once the brick base was dry, I filled the gaps with some Tamiya putty, smoothed it over when it was dry and then added the missing brick courses with a sharp Exacto blade (Photo 2).

I then glued the four corner posts



to the ends of the building, flush with the cladding on the ends. I now had to narrow the front and rear cladding slightly, taking approximately 6" off each end, allowing the cladding to fit between the corner posts, but keeping the window openings centred. The front weatherboard overlay is fragile; the top section breaks off very easily, but that is not a problem as the cladding has to be narrowed anyway. I also glued in the window frames while attaching the cladding, including the frame of the windows on the top storey. I then attached the top piece removed from the original front cladding above the window frames, shortening it slightly to fit between the corner posts.

While this was all drying, it is back to the roof sub-assembly. The

bargeboards were constructed from 1" x 10" Northeastern timber strips (standard NSWGR bargeboards of the period were 9" x 1½", so close enough). The gutters were made using Northeastern 1/16" channel. The ridge caps were made from lengths of florist's wire covered with 1'6" wide strips of paper to represent the flashing.

Before fitting the flashing, I scribed lines on the corrugated iron at 5' intervals to represent the individual sheets of corrugated iron. The flashing has a line drawn down the centre of it to help bend it in the right place over the ridge capping. Then PVA glue is put on the bottom of the paper and it is positioned over the ridge capping, gently pushing it down so it conforms with the shape

of the ridge capping. I use the end of my scale rule to do this.

As mentioned earlier, I couldn't figure out which parts were which for the toilet, so I used them as I saw fit, matching them to the photos, but shortening one piece and cutting a new piece for the door surrounds. I made new corner posts from 4" x 4" timber. The toilet on the prototype Liverpool box had clapboard cladding, but the parts were plain card. As my box is not Liverpool, I assumed that the toilet extension on the box I was constructing was built from fibrocement sheeting, so modelled it accordingly with cover strips made from strips of paper.

The ladder was assembled as per the instructions and kept as a separate sub-assembly until basic painting was completed.

Painting

Once I had the signal box to this stage I started painting the components. I chose to paint it in the NSWGR 'stone' colour scheme, as befits my preferred modelling period.

I first airbrushed the box itself overall Medium Stone using Humbrol matt No.62 Leather, the windows (including the window in the signal box door) Tamiya XF-2 Flat

White and the roof Tamiya XF-7 Flat Red.

When that had dried overnight, I lightly sanded the 'whiskers' off the

timber sections of the box (which also gave the paintwork a slightly 'distressed' look that worked well when I weathered it later), then hand painted the barge

boards and entrance door Humbrol matt No.62 Leather, being very careful not to get paint on the window frames in the door window.

I then painted the brick base with a 50/50 mix of Tamiya XF-57 Buff and XF-2 Flat White, making sure it got into all the gaps between the bricks. When that was dry I semidrybrushed a rough coat of Aqueous Hobby Color H7 Brown.

I painted the

inside of the gutters and the door step Tamiya XF-1 Flat Black. The signal box interior floor and the balcony floor were painted Tamiya XF-57 Buff (a good base colour for later weathering). The sections of the box that were Dark Stone were painted with Tamiya XF-10 Flat Brown and the interior walls and the panel on the signal box door were painted Light Stone, using Humbrol matt No.63 Sand.

Final Detailing

Once all the previous painting had dried, the final detailing was undertaken. Most of the final details were painted Dark Stone (Tamiya XF-10 Flat Brown) before attaching to the model. These were left until last as it is much easier to get clear colour separation if the parts are painted before attaching to the box. The cover strips between the timber cladding and the brick foundation were constructed from strips of 1" x 10" Northeastern timber, painted, attached, then trimmed to length once the glue had dried and then touched up with paint where they were trimmed. The window sills were made from 3" x 2" timber and the cover strips between the sets of windows on the frame floor from 4" x 2" timber. The door and window architraves should stand proud of the surface, not be flush with wall cladding as the kit is designed, so 4" x 2" timber strips were cut to length and added to the existing window frames to represent them.

The door knobs were made from small-headed pins, painted and then glued into pre-drilled holes in the doors.

The door to the interlocking room is at ground level on the real Liverpool box (but shown in the modelled position on the Data Sheet drawing) and, at 3' above ground level, a little hard for the HO scale maintenance personnel to access, so I made a little landing and steps up to it from some bits from the scrapbox.

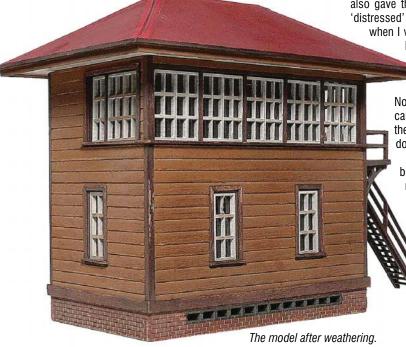
The model was now all but finished except for weathering and glazing, so the stair and handrail subassembly was glued on and any paint touching up needed applied with a fine brush (the roof subassembly was not glued on yet as access is still needed to fit the glazing [and any interior detailing] after weathering is completed).

Weathering

I wanted to reproduce the effect of worn and faded NSWGR stan-



The box painted, detailed and ready for weathering.



EXTENDED REVIEW

dard 'stone' colours as one might expect to find on the prototype in the late 1950s-1960s, as per John Shields' photo of Dog Trap box at Granville. Firstly, I lightly distressed the timberwork and roof with a fibreglass pen, then further distressed the timberwork with fine sandpaper. Very gently, the idea is to reproduce slightly worn and peeling paint, not a box on the verge of being demolished! Then it was time to get out the airbrush and lightly 'dust' an almost imperceptible layer of Tamiya XF-20 Medium Grey, very heavily diluted in Isocol alcohol, over the model, taking care not to make it too even, but not going as far as to paint a 'camouflage' effect. This was followed by a similarly almost imperceptible, uneven, layer of dilute Tamiya XF-52 Flat Earth and then Aqueous Hobby Color H343 Soot. Once that was done, the model is ready for glazing (clear styrene held on with PVA glue).

As this model is not going on Lambing Flat, I did not add any interior detail or a name plate, but this would not be difficult to do. Had I wished to add a signal frame inside the box, I would have looked at the Uneek range for suitable castings and scratchbuilt the other details, such as signalman's desk, signal diagram, etc. The name plate I would have made up on the computer from suitable graphics I have on file, printed it out and glued it to the box, as I did with the signal box at Back Creek Jn (see cover, AMRM Issue 305, April 2014).

Conclusion

This was a fairly simple kit to assemble and the process was enjoyable, with no hidden 'traps' for the unwary. The end result, with the proviso that it is a little overscale, is

a more than acceptable model of a classic NSWGR signal box that would grace any layout set in the areas in which these boxes were constructed.

Dimensions	Prototype (as drawn Data Sheet S12)	Model	
Length	22'6"	24'4"	
Width	12'4"	14'6"	
Overall height	24'	28'	
Height of sides	18'	21'3"	
Standard NSWGR window frame	2'3" x 4'6"	2'6" x 5'6"	
Standard NSWGR Signal box door	2'6" x 6'6"	2'6" x 6'6"	

REVIEWS

Australian Railway Historical Society Archives Collection Volume 1 The Alex Grunbach Films DVD by Belbin Video, 12 Berowra Rd, Mt Colah 2079. Website: www.belbinvideo.com. au. Price: \$40.00

Alex Grunbach, long a stalwart of the Australian Railway Historical Society, was regarded very highly as a photographer and his work has been shown far and wide. Aside from his interest in photography, Alex also proved that he too knew how to operate a movie camera. Recently, Belbin Video was given access to the ARHS (NSW) archives and subsequently the first of a planned series of ARHS Archive Collection DVDs has eventuated. Belbin Video has produced a brilliant visual record, albeit with non-original

sound dubbed to enhance the original silent footage. Of note is the use of good transitions, which adds to the vibe of a high quality and well executed production.

The images on this DVD were shot on Kodachrome, from circa 1963 up until around the end of steam in 1973. The DVD also sports a very negotiable menu allowing you to pick from scenes, of which there are six separate options. From whichever one you view, it will play through to the end of the DVD from that scene. The DVD has some gems in the footage of it, such as workings on the Merriwa branch, action from the Sydney goods lines, shunting at both Pyrmont and Clyde, working of the NSW Vintage Train on the Yass Tramway, the banking of trains on the steeply graded Tumulla Bank, double-headed steam operations in Central West NSW and the workings of Glenlee coal trains. In this film, you will see the main locomotive classes of the NSWGR, including first generation diesels such as 41, 421, and 44 class, as well as early electrics too. Other things of note include the very good conversion from film to a digital file. The DVD also contains footage of steam locomotives 'at rest', which for anyone who appreciates a beast in solitude, is quite beautiful.

One of the greatest things about DVDs like this is that they allow the scale modeller to review consists and faithfully reproduce them in a much smaller size, making such

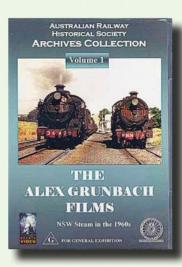
films great modellers' aids! The work that has been put in by the producer, Graeme Belbin, as well as many others and the ARHS, to make this film possible is greatly appreciated by this reviewer. As a modeller and someone who has an interest in videography and photography, I cannot emphasise how good I think this film is; the overall quality and production of the DVD is top notch. No matter what era of the New South Wales prototype you model, this film is a great inclusion into your collection and a valuable research tool for prototype modelling. This film is available for purchase direct from Belbin Video or from the ARHS NSW bookshop in Redfern and from Trainworks at Thirlmere.

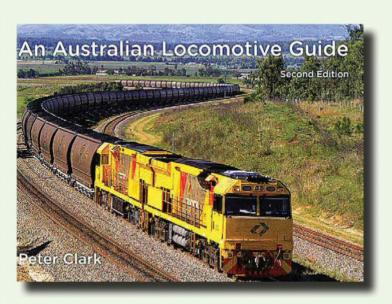
Michael Hobson

An Australian Locomotive Guide – Second Edition by Peter Clark. Published by Rosenberg Publishing, PO Box 6125, Dural Delivery Centre 2158. Website: www.rosenbergpub.com.au. Price: \$34.95.

The first edition of this very useful guide was published in 2012. While the format has remained the same, the second edition includes the many new classes of locomotive which have entered service in recent times.

The book has a short section dealing with surviving operating steam locomotives, but the main body deals with all diesel and electric types which have seen service on Australian mainline railways, including the major private rail-





ways. It does not cover narrowgauge sugar cane railways, nor small industrial operations. Each type is allocated a page, with a colour portrait photo, class listing, principal dimensions and a short history. The latter is particularly useful in distinguishing amongst the many visually similar types which have proliferated in recent times. Diesel locomotives are grouped by prime mover - Alco, EMD, English Electric, etc., while electric locomotives are grouped by owner. There are useful introductory chapters on Australian locomotive builders, engine types and locomotive recognition.

I have two major reservations about this book. The author has imposed the European standard of 'wheel arrangement' (in fact, axle arrangement) on both steam and diesel types. In the case of steam, this is just perverse - Australia, like most of the Anglophone world, used the Whyte system of classification during the majority of the steam era. It is meaningless to the vast majority of readers (and the system is not explained in the book) to describe a Mt Lyell tank as a B1'2zt, when those who know about these locomotives have always known them as 0-4-2 rack tank engines. An NSWGR 32, 35 or 36 class is a 4-6-0, and has always been so described in this country. In the case of non-steam power, Australia has generally followed the English system, which distinguishes between individually powered axles and mechanically coupled arrangements and has used a '-' to indicate independent bogies and a '+' to show articulated bogies. This book does not adhere to the latter convention, so that the 45 and 46 class electrics are shown as Co'Co', whereas conventionally they have been ascribed the Co+Co nomenclature, indicating that the bogies were articulated.

Secondly, in an attempt to appear 'modern', the dimensions of the steam engines and early diesels are given in metric units (converted from the original Imperial units). This type of revisionism destroys the relationships which can be drawn if the original measurements are retained. Steam engines were designed, generally, in rounded Imperial units - 200lb boiler pressure, 4'6" wheels, and so on. To give the metric equivalent in an artificially exact conversion fails to draw out the relationships between different design elements. Did a 59 class really blow off at exactly 1379kPa? Of course not! The valves were set for 200 lb/sq.in. and there was a margin of error indicated in that round figure.

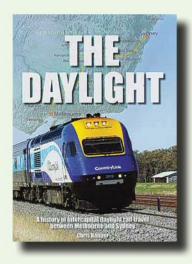
With the caveats mentioned, the book can be recommended. The information is accurate and up to date, and it allows ready recognition of the variations amongst the many modern diesels of similar appearance which are likely to pass in front of your lens.

Ian Dunn

The Daylight by Chris Banger. Published by Australian Railway Historical Society (New South Wales Division), 67 Renwick Street, Redfern 2016. Website: www.arhsnsw.com.au. Price:

Although there have been express trains between Sydney and Melbourne since the days when the different gauge railways met at Albury, 'through' daytime trains were confined to special trains for specific events (of course, a through train before 1962 involved the "all change" call at Albury, where the two trains of different gauges would be side by side, enabling a speedy transfer for the passengers). The 1954 court decision over interstate trade saw increased competition from road services between the capitals, prompting the NSW and Victorian state railways to introduce the first regular through (with a change of train/gauge at the border) running of an express in daylight hours. From March 1956 the service was three days a week, soon expanded to six days a week. With the opening of the standard gauge between the two capitals in April 1962, the (almost) daily Intercapital Daylight could run through to Melbourne without the passengers needing to change trains at Albury. With rolling stock supplied by the NSWGR (and, until the 1980s, a change of engines at Albury) the train was a feature of the NSW-Victoria passenger services. Eventually, time would catch up with this service. Cheap airfares created many problems with low patronage, and the locohauled service ceased in September 1991. Later, in December 1994, an XPT service reinstated the daily daytime trip between the two east coast capitals.

In this book, author Chris Banger, takes us from the late 1930s, when the *Riverina Express*. was extended to Albury for Melbourne customers, right up to the still operating service in March 2014. Along the way, in 352 A4 pages, protected by a hard cover with dust jacket, Chris covers almost every aspect of this train with information that will interest the rail historian and railway modeller alike. Fully indexed, the book is profusely illustrated with many official illustrations, as well as many



drawn from a large number of rail historians and fans. The illustrations, both colour and b&w, plus the detailed captions, enhance the informative text.

For the rail historian there is the information on the time tables, the incidents (such as derailments), technicalities of carriages and locomotives, etc. Information included of direct benefit to the modeller includes things such as the details of the various consists of the RUB car sets, both interior and exterior, and the various consists of the train over the years.

For this reviewer, this book brings back the heady days of railfan photography in the late 1980s and early 1990s, where a wellplanned trip from Sydney made it possible to photograph both up and down services of the Intercapital Daylight passing on the Bethungra Spiral between Cootamundra and Junee. Heady, for motor cars and roads were not as good as today and the round trip was well over twelve hours; and more often than not one leg of the express would be running late, so the cross took place elsewhere. Still, the enjoyment was there.

If there is a negative in this book it is some of the supporting nonofficial photographs which would have benefited from digital enhancing from someone with railway interests. But this minor niggle should not downgrade the value of this well produced, informative book to anyone with an interest in the history of rail passenger services between Sydney and Melbourne.

Bob Gallagher

Big Boost and Micro Boost Speakers. Available from the Model Railroad Craftsman, Shop 2, Level 1, 64-70 Main St, Blacktown 2148. Ph: (02) 9831 8217. Fax: (02) 8678 0276. Website: www.mrrs.com.au. Price: \$20.00 each (including enclosure).

The Model Railroad Craftsman has released two small mobile phone speakers, sometimes known as 'sugar cube speakers', along with matching enclosures. The two sizes available are the Big Boost, the enclosure of which is 15mm x 21mm x 7mm, and the Micro Boost with a 13mm x 17mm x 7mm enclosure. Both speakers come with approximately 200mm of brown wire.

The speakers should be inserted into the enclosure so that the two small connections for the wires are outwards. Once inserted the crack between the speaker edge and the enclosure needs to be sealed. I was advised to use a small amount of PVA glue on a toothpick. Once dry, the wires can be soldered onto the speaker connections, but it is best to hold the speaker enclosure in a vice as some soldering iron tips are magnetic and the speaker could attach itself to the iron magnetically, which would not be good!

I tried both speakers in a Trainorama 49 class diesel, as the supplied speaker in that model is not very loud. The sound from both speakers is very good quality with a 'roundness' or perhaps more bass than would be expected. Trying to explain the sound quality is very



Big Boost (left) and Micro Boost (right) speakers, mounted in the supplied enclosures.

subjective, but I was more than happy with both speakers. The larger speaker did seem to be a little louder, but I had no way to measure this. I set the master volume of the Soundtraxx Tsunami EMD 567 sound decoder to close to the maximum and could not detect any distortion. The volume level needed will of course be dependent on the

particular location in the locomotive, sound decoder and installation process.

Overall, these are useful additions to the range of speakers avail-

able to the hobbyist with good quality sound and their size will allow them to be installed in smaller spaces than has been the norm.

Ray Pilgrim

NSWGR HBW Ballast Hopper Wagon kit in HO scale by Peter Boorman's Workshop, 187 Old Ipswich Rd, Riverview 4303. Website: www.peterboormansworkshop.com.au. Price: \$150.00 per three-pack kit.

The latest kit from the innovative Peter Boorman's Workshop is for the characterful four-wheel HBW ballast hopper, of which almost 400 at one time bestrode the metals of the NSWGR (see accompanying Prototype File article). They were, however, very elusive vehicles, rarely photographed and almost never seen in revenue goods trains perhaps only on infrequent trips to and from workshop attention. Their lifespan was long - 1891 to late 1960s, and they could be found on distant sidings in depots and goods yards, awaiting the next call to duty. They are ideal 'rolling clutter' to fill up a lazy corner of your layout. Of course, if you have a ballast quarry...

Let me say at the outset that this is not a kit for the faint-hearted. It is well designed and manufactured, with polyurethane chassis and hopper, very fine etched brass W-irons, brake gear and detail parts, and superb lost-wax cast brass axlebox/spring assemblies and buffers from Andlan Models. Eight-spoke wheels of RP25/88 profile are included, as is a decal sheet with a selection of numbers (most not correct, so you will need to 'cut-and-paste'; or send a stamped, self addressed envelope to Kestrel ModelCraft (kestrelmc@bigpond.com), along with \$5.00, for a sheet with six correct numbers and associated lettering). Many of the parts are very small and have a propensity to take flight across the model

A complete, but unpainted, timber-framed HBW constructed as per the kit instructions (except for bending the brake gear to line up with the wheels) by AMRM's Production Manager, included to show the different materials used in this multi-media kit and to reinforce the reviewer's warning to read the instructions carefully as some parts are 'handed' — the W irons have been assembled in the reversed position... whoops!

room and bury themselves in inaccessible corners.

Almost every component in this kit can be installed the wrong way around, so it is essential to read and fully comprehend the instructions and the arrangement of the prototype before commencing construction. One side has the

brake gear, the other has the hopper actuating mechanism. The hopper flap is on one side only; the underframe is handed. Counterintuitively, the W-iron etches have detail on the *inside*, and the axlebox castings are fitted to the plain, undetailed side. Furthermore, the few available photos indicated that each wagon was different. There were two styles of hopper support: timber and fabricated steel, and two varieties of hopper actuating wheel. The kits are available with both types of support.

I followed the instructions (two A4 pages, with good diagrams and component numbering). Some of the instructions are a little laconic: "Laminate 2 x part 6 to form drawhooks" means to solder two of the drawhook etches together and sand to profile, thus forming a drawhook of prototypical thickness. No links are provided for the coupling, so I had to source some suitable chain. The urethane castings are well done, but there is need for considerable cleaning up of the edges to get a crisp outline. When constructing the chassis, I

> discovered that the brake blocks were not going to line up with the wheel treads, so I separated the etch on that side into three parts (two W-irons and one brake rigging), so that I could add a strip of Evergreen 4" x 6" strip along the inside of the central portion of the solebar and fix



A completed timber-braced version of the model, modified to represent HBW W720 (see Howard Armstrong's photo in the accompanying Prototype File) with the addition of packed-out Cammell buffers and split-spoke wheels.

the brake rigging to that, so bringing the shoes into correct alignment. I also preferred to use some cast brake shoes I had in the parts box for the first one I constructed, but the etched brake shoes provided are perfectly satisfactory, so I used them on subsequent models. As a consequence of the moulding process, the top edge boards of the hopper are angled; the boards and vertical members actually had square sides and ends, so each side and end of the hopper needs to be sanded to give a 90° angle.

I did encounter some difficulties in construction. The superglue bond between the etched W-iron assembly and the underframe was not strong enough, and I resorted to a belt-and-braces approach, drilling, pinning and soldering the W-iron to the underframe and filing off the head of the pin flush with the outside of the solebar. Although I superglued the axleboxes to the W-irons on my first model, on subsequent models I soldered all brass components, giving a much more robust finished product. The handbrake lever can be too short when bent up according to the instructions, and the handbrake lever ratchet does not fold up according to the instruction diagram 11. When completed, this bracket needs some form of mechanical attachment to the underframe - it is very

fragile. I elected to solder it to the handbrake lever, to add some strength.

When joining the hopper to the completed chassis, it is likely you will find some unwanted contact between the wheels and parts of the hopper. Some judicious slicing off of bolt heads and a little sanding of corner plates will sort the problem, and the surgery is quite invisible when the model is completed.

The completed vehicle looks good, and is accurate in its measurements. The bolt detail is a little overscale, but not objectionably so. The wagon is, however, too light for traffic purposes, and will benefit from a bit of metal in the bottom of the hopper, covered by a load of blue metal or ashes. This is certainly not a kit for the novice, and is recommended for those with a bit of experience under their belts. 'Old Buggers' could add dumb buffers in place of the provided Turton type; dumb buffered HBWs seem to have been in traffic at least until the First World War.

A suitable selection of numbers is W5, W14, W33, W86, W93, W105, W169, W278, W332, W345, W485, W524, W572, W641, W720, W827, W925, W939, W950, all of which lasted beyond 1960. The kit is not suitable for the preserved W39, which differs significantly in a number of details.

A worthwhile addition to the range of wagon kits available to the NSWGR modeller.

Ian Dunn



A steel-braced version, built as per the kit, but with the addition of scratchbuilt coupling chains and numberplate.

NSWGR 43 class Co-Co Diesel-Electric Locomotive, r-t-r in HO scale, by Auscision Models, PO Box 1791, Castle Hill 1765. Website: www.auscisionmodels. com.au. Price: \$335.00.

Prototype

The 43 class locomotives of the erstwhile NSWGR were quite unique and achieved cult status in their old age. Their design had its genesis in a four-unit set of demonstrator locomotives, numbered 750, built by General Electric at Erie, Pennsylvania in 1954. Two units had Cooper-Bessemer 8-cylinder 1200 h.p. engines, the other two had 12-cylinder 1800 h.p. engines. Traction motors and other electrical equipment were, naturally, by General Electric, as supplied over several decades to Alco for its line of diesel locomotives, as well as for GE's own products. No.750 tested for a few years on the Erie Railroad, in that road's livery, but returned to the factory in 1959 for new engines, this time 16-cylinder, 2000 h.p. units all round, and it was soon sold to the Union Pacific Railroad and arrayed in that road's venerable and distinctive yellow colour scheme as 620A, 620B, 621B and 621A. These locos were withdrawn in 1963, having contributed not much to the development of GE's Universal line of locomotives, which became the company's mainstay from the early 1960s.

However, in 1954 the NSWGR sought expressions of interest for two lots of six mainline dieselelectric locomotives. The successful tenderers were Clyde, with the EMD A7 model, and Australian General Electric, which contracted actual construction to A. Goninan and Co. of Newcastle, holders of the GE licence. Rather than use the Cooper-Bessemer engine, Goninan chose to install a V12 Alco series 244H engine of 1600 h.p., a newer version of the engines in the NSWGR 40 class, while retaining the GE electrical package. The carbody was styled after the GE demonstrator units 750, although with a fully welded monocoque body and suitably modified to fall within the smaller NSWGR loading gauge. As it turned out, these were the only series-production locomotives in the world to utilise this distinctive and handsome style, with its chiselled nose profile, rectangular, recessed headlight casing and smooth skin. Additional details were the oval buffers (shared with the 42 class) and six-wheel trucks with very elegant I-section, cast equaliser beams. Illuminated num-



they made a most elegant combination formed as back-to-back pairs on the interstate expresses. Repaints substituted Indian red for the Special Maroon, but otherwise the livery remained constant until withdrawal in the 1970s. Visual modifications included substitution of wire mesh for the shutter over the radiators at the rear, addition of welded-on wire steps up the sides of the nose, a cut-out for mechanical staff exchanger apparatus, an access ladder up the rear, addition of numbers (originally omitted) and later the state coat of arms to the sides, and the painting of the pilot silver or black. After initial service out of Delec on the Western line, they became denizens of the North, based at Broadmeadow, until withdrawn between 1975 and 1978. Fortunately, 4306, the last in traffic, was set aside for preservation and restored to original condition, being seen far and wide over the past few years at the head of enthusiast specials.

Model

Auscision's model of this iconic type is up to the company's usual very high standards. Design is conventional, with a heavy cast-metal chassis, large, five-pole, skewwound motor with twin flywheels, driving all axles through universal shafts and gear towers on each bogie. Pick-up is from all wheels. The body is a highly detailed plastic injection moulding, with much added detail in etched and cast

etched metal fan mesh reveals the fan blades below, but the upper side grilles are not see-through. The complex planes of the cab and nose are well captured - something which no previous model of this class has achieved. The bogie sideframes are POM, highly detailed and exhibiting the elegance of the originals. Sprung buffers and Kadee-compatible, scale-head couplers are fitted. The cab interior is detailed and includes a two-man crew. Directional lighting is provided. Painting is exemplary, with sharp definition of the colours and good opacity of the yellow. Lettering is of the correct font and the number boards have the correct blue background. Dimensions are all correct and mass is 400g, giving excellent haulage capabilities. A 21-pin socket is provided for ESU and similar decoders, and DCC Sounds offers a 43 class package, with authentic sounds from 4306, ready for plug-in installation, while Soundtraxx offer an Alco 244 diesel in their Tsunami range. Perform-

ance is what we have come to expect: smooth acceleration from a very low-speed start and a top speed in line with that permitted the prototype. Switches are provided under the fuel tank to isolate the marker and headlights at each end if the unit is part of a multiloco combination.

There really is nothing to criticise on this model. I have a niggling suspicion that the proportions of the top side grilles are not 100%, but if it is not quite right, it certainly is not glaring. Eight models are available, covering all livery and detail variations – see Auscision's website for details of availability. This is another firstrate model from Auscision and deserves to sell quickly.

Ian Dunn





Victorian Railways 30' Goods Shed kit in HO scale by Model Train Buildings. Website: www. modeltrainbuildings.com.au. Price: \$49.95.

The basic kit builds into a 30'0" by 20'0" standard two-door VR goods shed, based on the goods shed that once stood at Bullarto, near Daylesford. The parts are packaged in a zip-lock plastic bag with card header.

The goods shed kit instructions consist of a single-sided A4 page. This page contains seven construction steps and five photographs. The photos show various stages in the build process along with the completed model. While the instruction steps include a number of detailed sub-steps, the instruction sequence fails to include some important stages, such as gluing on the roofing sheets! Make yourself familiar with all steps to ensure that you do not make it impossible to get the parts to fit in the right place. Dry fit all assemblies before gluing.

There is no mention of any tools or adhesives required. I used PVA for the wooden assemblies and UHU glue for the corrugated and styrene materials, though any contact cement should work.

I started by laying out all of the kit parts to identify the parts required for each assembly step. Groups of parts were placed in labelled snap-lock bags. There are a lot of parts in the kit, many of which have similar dimensions. The parts photo in this review shows one of each part in the kit. Of particular note are the three differently sized, plain straight pieces. There are eight 40mm by 1.75mm corner trim pieces, twelve 32.6mm

by 1.8mm crash boards and twelve 29mm by 1.3mm platform leg braces.

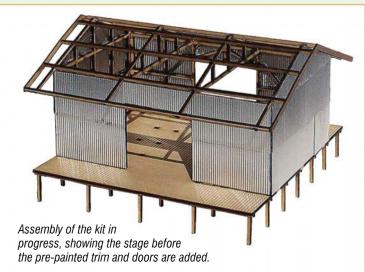
Dimensions of the walls and platform matched the dimensions of 30'0" by 20'0" goods shed plan found on Mark Bau's Victorian Railways website (www.victorian-railways.net). The main wall framing is 1.5mm (0.060") thick and trim 0.8mm (0.035") thick. Spouting is 0.060" channel and down piping is .035" rod (not tubing as stated in the instructions).

I did not follow the assembly instruction sheet sequence, as I normally paint floor and trim pieces before gluing into place. I started with step 3, adding the corrugated iron to the shed walls.

The corrugated panels are extremely tough to cut. The instructions suggest cutting the corrugated sheet in half length wise, as this would give 5'6" sheet height. Individual iron sheets were to be cut 20mm wide, equal to 5'9" wide sheets. Standard corrugated iron sheets used by the Victorian Railways were 6'0" by 3'0".

The building walls with the doors are 11'6" high. Allowing for the suggested overlap the 5'6" tall iron panels would require two full sheets plus an extra bit at the top. My prototype photographs of the Cohuna goods shed (refer AMRM Issue 155 April 1989, page 49) do not show this to be the case. The Bullarto goods shed may match the corrugated iron overlapping as suggested.

I cut the sheets into 6'0" tall strips, which allows two strips to cover the full wall height. I cut the side panels to match the full width of the section beside the door (including the side tabs) and



another narrower piece to fit above the door opening. This results in five pieces for each 30' long wall.

When gluing the corrugated iron onto the walls, remember that the tabs slot into the platform, so glue the corrugated iron down to the bottom of the wall framing, leaving the tabs clear. End walls were similarly clad with three strips of iron across the whole wall. The triangular template was used to cut the top sheet for the end walls.

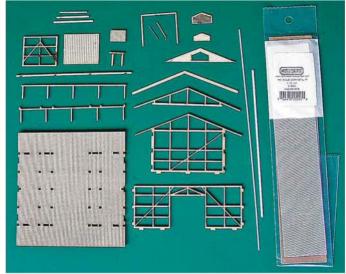
Construction then continued with steps 1 and 2. I assembled the walls using the floor as a holding jig while the PVA glue was drying. This allowed later access to the underside of the roof panels for gluing. Because I had already put the corrugated iron on the walls the slots in the ends of the trusses (roof beams) had to be eased slightly to allow for the corrugated material. An emery board was used for this.

Roof sheeting was added at this stage. Depending on the era being modelled, the number of roofing sheets varied. The prototype drawing shows that the roof used two 6' sheets and half of a 7' sheet, apart from the 4' wide curved ridge capping. More recent, 1980s era photos show only two sheets and the ridge capping. The roof measures 16' from the fascia to the centre of the building. Following the instructions in Step 1, the purlins are 5'3", 10'6" and 14'6" from the fascia. I used a fullwidth sheet and a half-width sheet on each side to cover the roof. A 2'-wide strip was added as the ridge capping.

Steps 4 to 7 were followed to complete the building, before weathering to reduce the bright shine of the corrugated aluminium.

Despite the occasional lapse in the instructions, this kit does build into a good representation of a Victorian Railways 30' goods shed. The kit is available direct from the company's website or direct from the producer at selected exhibitions.

Phil Jeffery



The goods shed kit parts (only one of each item shown where multiple parts are provided).



WAGR/Westrail L class Co-Co diesel locomotive, r-t-r in HO scale by Haskell Co., 628 DaZhong 2nd Road, ZouYing District, Kaohsiung City, 813 Taiwan. Website: haskellco.net. Price: in text.

Prototype

With the 657km (408 miles) Eastern Goldfields Railway between Perth and Kalgoorlie being converted to standard gauge, the Western Australian Government Railways started to take delivery of 23 Electro Motive Diesel GT26CW locomotives from Clyde Engineering in October 1967. The design was based on the Electro-Motive Diesel SD40, reduced in height to fit within the Australian loading gauge. At the time they were comfortably the largest and heaviest diesel locomotive operated by a government system. Although there have been some scrappings of the class in recent times, many of these locomotives still survive today, spread across three states and with a number of operators. Active units are getting a little thin on the ground, though, with the majority of the class now stowed due to downturns in traffic, as operators push ahead with deliveries of new locomotives of higher power and better fuel economy, a major concern nowadays.

Model

I received for review the model of L268 in the experimental Westrail blue with orange and white stripes. The model comes very well packed in a sturdy cardboard box with a see-through window on the front. The model is secured in the now customary clear plastic cradle. It is also wrapped in a clear plastic wrap to help protect it whilst in transit. Also, depending on the actual model ordered, there will be a small plastic bag taped to the cradle containing any additional parts to enable the purchaser to add details, if desired, for a specific time period being modelled. These can be ditch lights, toilet vent for the nose and so forth. Also supplied is an instruction sheet, for the removal of the body and for the steps of installing a DCC decoder.

In comparing the model to the

original Clyde Engineering plans, the model sits very well in comparison (see sidebox).

There are the correct number of doors and they are correctly placed along the body sides. Most other details appear to be correct to the drawings and the photographs that were available to the reviewer. Also the angled vertical vents on the side are correct for L268, as there are a few differences on many of the class as they were delivered.

There is one minor error with the correct shape of the angle on the nose directly under the front headlight: it is missing its flat definition. However, the overall appearance of the model is guite good. Haskell has also chosen to model the grill of the Dynavane intake as moulded vertical bars, which at normal viewing distance appears to be acceptable. I would have preferred this to have been seethrough as per the prototype. The three vents on top of the intake are correct for this model, as per the photographs of this that were viewed.

The paint finish is quite sharp and the correct colours have been portrayed. The white and the orange stripes are the correct width, when compared to the photographs of the prototype. Overall, this scheme has been captured rather well. The definition of the lines is quite good, but there does appear to be a slight error, in that the orange and white stripes on the left-hand side should continue down over the sill, as they do on the right-hand side.

The handrails appear to be a little overscale, which may be due to their being painted on the review model. The one vent above the dynamic brake on the roof is correct for this particular model and the painting of the roof fans in the roof colour is also correct when compared to photographs. The details on the bogies are quite crisp and sharp, including the SKF and WAGR stamped on the axle box covers, which is a nice touch. Also they have nicely etched cab plates and L class letters applied to the cab.

Running quality of the model straight out of the box on DC is quite smooth. It tends to run at a slower speed, compared to the latest offerings from other Australian



manufacturers (probably the gearing that is used). The lighting board is fitted with a dummy 8-pin plug, which if choosing to run on DCC is a simple 'plug and play' operation. There is also quite a lot of room within the long hood for mounting a speaker for those who wish to add sound. Installation of a Loksound Select and speaker was done in under ten minutes. The main body is removed by sliding off the fuel tank, which reveals two screws that secure the body to the chassis. Once undone, the hood is removable very easily, the lights are tethered on a suitable length of wire so the hood can be placed along side the chassis without having to unplug the lighting at all. This allows ease of access to plugging in the desired decoder and adding a speaker within the hood itself at the rear end if fitting sound.

The locomotives have working marker lights that are switched with the headlights and are directional. These are not able to be switched independently.

Overall, the model meets the requirements of capturing the feel of the prototype. Whilst I have picked a few minor errors, they, to me, do not detract from what an excellent model it is. The ease of fitting a decoder into the locomotive was a pleasing aspect. They are certainly value for money for someone wanting an r-t-r Western Australian model. I applaud Haskell for delivering their model in a timely manner and they can certainly claim to have the honour of delivering the very first r-t-r model of a

HO scale.

Haskell have also released a number of other paint schemes for the period from 1967 up to the early ARG days. From the original two-tone WAGR blue/admiralty grey L254, L255 and L263, the second WAGR two-tone blue L258, L262 and L265, the later standard Westrail with blue and white pin stripe L252, L253, L259 and L261, plus the ARG yellow and black stripe L3115. Also available are two of the units that were hired to VR in the 1980s, L252 and L253, decorated with the 'radio equipped' logos applied during their sojourn in the east.

They are also offering an unpainted model complete with all the detail parts supplied separately for those who wish to paint and model a specific locomotive in a vet un-released paint scheme. Prices of these vary depending on the scheme chosen, but start from \$268.00 for the experimental Westrail scheme up to \$295.00 for most others including the unpainted model with all the extra detail bits supplied. They are available throughout Australia at all good hobby shops or directly from Haskell via their website: www.haskellco.net/west australian ho models

Paul Moss

	Prototype	Model
Length	63'6"	64'2
Height	13'101/2"	13'11"
Width	9'0"	9'6"



V/Line Passenger P Class Bo-Bo Diesel-electric Locomotive, r-t-r in HO scale, by Bendigo Rail Models, PO Box 1791, Castle Hill 1765. Website: www.auscisionmodels.com.au. Price: \$295.00

Prototype

The 'New Deal' of the early 1980s required new rolling stock for Victorian country rail services and, amongst other new builds and rebuilds, thirteen first-series 'flat top' T class Bo-Bo diesel-electric locomotives were rebuilt into new P class during 1984 and 1985. Designed to handle shorter distance interurban services hauling H-type car sets, the rebuild was a substantial change undertaken by Clyde, including fitting a new 820kW engine and a diesel generator head-end power (HEP) unit to provide for coaching stock electrical needs. This was housed in a new build body with changes also made below footplate to accommodate their new role and extend the locomotive life. Delivered in V/Line orange and grey, the class remit was extended over time from interurban passenger work to country freight workings, typically intrastate and shorter workings, with the HEP units sometimes finding use powering refrigerated containers. With the purchase of V/Line Freight by Freight Victoria (later Freight Australia), five P class were included, the remainder continuing in passenger service with V/Line. These freight-tasked units later passed on purchase of FA to Pacific National. Over the life of the class, there have been few changes outside livery alterations, the most material and visible being provision of a Mesabi radiator for the HEP from the mid-1990s on some locomotives, reflected in a more prominent housing behind the cab, and fitting of full-length handrails during the mid-2000s. At date of writing this review, the eight 'passenger' P class owned by V/Line remain in service and of the remaining five 'freight' units, one is owned by Pacific National and the other four have recently been purchased by the Ettamogah Rail Hub.

Model

Bendigo Rail Models has released six different livery variations for the P class (V/Line orange and grey, V/Line Passenger Mk1, V/Line Passenger Mark 2, V/Line Passenger Mk3, Freight Australia and Pacific National (Freight Australia green and gold with Pacific National logos), plus



several body variations depending on era (as delivered, with revised HEP, with extended handrails, with larger mirrors), thereby covering all primary variations of the P class over its life to date.

The model comes very soundly packed in Bendigo Rail Models' standard firm card box with foam liner, within which sits a plastic cradle that snugly holds the model and is held tight by a further plastic wrapper. The body of the model is formed in strong ABS plastic with handrails and brake piping in metal and plastic. As is now common, metal etched windscreen wipers and mirrors are fitted. The model scales out very well against all major dimensions. The P class is a classic example of the now-dated misconception that diesel locomotives are 'just a box', the P having a highly individual and varied body. The reviewer is an admirer of this class and I was very interested to see whether Bendigo Rail Models had been able to capture the spirit and look of this complex prototype. My view is that they have done so and done it admirably. This is definitely a P class and, in addition to looking right, the model reflects the effort put in by the researcher to represent the prototype at the limit of current modelling technology. Noteworthy is the shaping capturing the short and long hood and the vast amount of fine detail. Standout detail features for me were the HEP fan outlet and rim, mesh on the cabside air conditioner fan cover, very fine brass horns, radiator meshes, MU attachments, below running board detail, and very fine handrails and stanchions on the long hood. Bendigo Rail Models/Auscision have a sound reputation for their high specification and this model is no exception to this. No effort appears to have been spared to capture every detail of this prototype, so there is very little if any detailing to be done by even the most fastidious modeller. The cab has two crew members, both facing the short hood end of the locomotive. Scale metal couplers are fitted and I had no problems connecting them with genuine Kadees of various sizes.

Special mention must be made of the livery and decaling. I purchased my own model in original V/Line orange and grey and was then provided with P12 in V/Line Passenger Mk3 colours for this review. Both have first-class paint application, no bleed between sec-

tions and a smooth low sheen finish and a beyond reproach rendition of the colours involved.

Only three minor issues were found on the model: on my V/Line coloured model the number plate is placed slightly high on the cab side leading to the number, (re) builder's plates and cab side window all touching rather than having the small gap of the prototype, the sandbox supports (vertical bars) remain on the bogie side (most likely as a result of the reuse of the original 'flat top' T class chassis) - I have not seen these on any prototype photos viewed. Lastly, the footplate side handrail at the No.2 end is slightly off vertical, the manufacturer making the positioning hole slightly low which has meant the handrail needs to lean to reach it. None of these issues are significant nor do they detract from the model, indeed are only visible on close inspection and the latter two can be readily fixed.

To the workings and chassis, the bogie detail and bulk is well represented with speedo cord and sanders (out of alignment with wheel treads to allow for wider bogie swing) very well done and surprisingly resilient. The model picks up and drives from all



wheels, and these are blackened metal discs to RP25-110 standard, able to operate on rail down to code 70, with an 18" (457mm) minimum radius recommended. As is now standard, operating LED head and marker lights are fitted with small switches located below the model enabling them to be turned on and off if desired. The model is driven by a fivepole skew wound motor with brass flywheel. The heavy diecast chassis contributes much of the model's weight, which at just over 225 grams is very good for its size. The model is able to run in DC straight from the box and is DCC ready, with a 21-pin socket fitted for those wanting to add it. It is also sound ready with speaker enclosures included to assist sound fitting. (I run DC only, so DCC operation could not be examined for this review.)

The model performed excellently straight from the box with immediate smooth starting and slow-speed operation. Higher speed saw very little increase in motor noise, and even under load the loco was very quiet, the noise of the train on rail nearly eclipsing anything coming from the motor. The locomotive was tested on my layout with 36" (914mm) curves and maximum 1 in 50 gradient. A loading of 41 wagons (40 four-wheelers, one bogie wagon, including one brass wagon) was used. The model had no problem starting this loading at slow speed with no slipping evident. Similarly the model had no trouble managing this loading around the layout and through multiple and connected/reversing medium radius points (Peco). Standing starts were tested with no slipping evident including on the grade and, just as importantly, the loco crawled with this load through varying track conditions; very impressive indeed. As with my previous review of the VR L class (AMRM Issue 315, December 2015), I reiterate this kind of operation without any running-in is a credit to the manufacturers in China and Bendigo Rail Models in their specification and testing. The loco tracked well with no derailments over a variety of track conditions, the short and agile bogies providing secure footing (as per prototype!)

Whether for passenger or freight tasks, at least one P class is near mandatory for any modeller of the post-1984 Victorian scene, with whom they should be very popular. Whether in regular operation or for display, this model is very impressive indeed, and bodes well for future builds by Bendigo Rail Models.

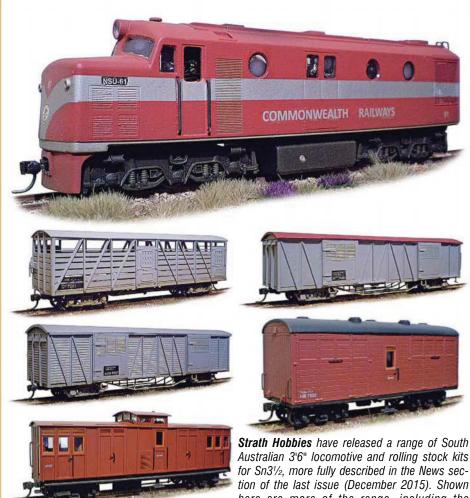
Andrew Collier

REVIEWS

The products covered in the Review pages have been supplied or made available by the manufacturer, producer, importer or retailer listed in each product heading. AMRM welcomes access to new product lines for inclusion in the Review pages and requests items be addressed to the Editor at Australian Model Railway Magazine, PO Box 345, Matraville 2036. Readers are reminded that the prices quoted in the reviews are those applicable at the time of going to press. Those using the prices as a guide to purchasing products by mail order should always add extra for postage, or contact the supplier for the additional cost for mail order.

Editor

RECENT EL EASES



Australian 3'6" locomotive and rolling stock kits for Sn3½, more fully described in the News section of the last issue (December 2015). Shown here are more of the range, including the Commonwealth Railways NSU diesel locomotive, plus SAR Cn cattle wagon, MCn closed van, VCW louvred van, HB horse box and one of the kits for different types of goods brake vans, as well as a passenger brake van. Strath Hobbies kits are available from End of the Line Hobbies in Victor Harbor, SA.



Auscision released their range of HO scale r-t-r VR 'series 1' X class diesels in early December, 2015. As has become traditional with Auscision, along

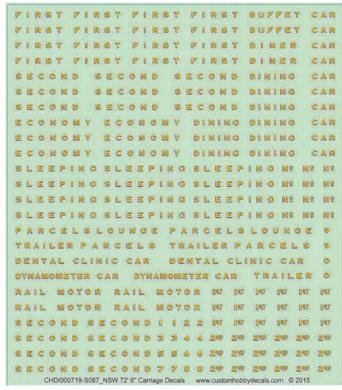
with the already announced versions

in VR blue and gold, V/Line orange and grey and Freight Australia green and yellow, there were two previously unannounced models, X31 as preserved in blue and gold (illustrated) and X32 in V/Line orange and grey.

MyLocoSound has released an updated version of their sound unit for analogue DC users. Now available is an automatic sound feature which only requires the operator to apply power to trigger an appropriate sequence of sounds. In the case of steam locomotives, a typical sequence can be as follows: locomotive stationary, gentle steam hiss and Westinghouse brake pump sound (if loco is air-braked) and the safety valve will blow for ten seconds each minute. When the operator desires the locomotive to move and applies power, the guard's whistle



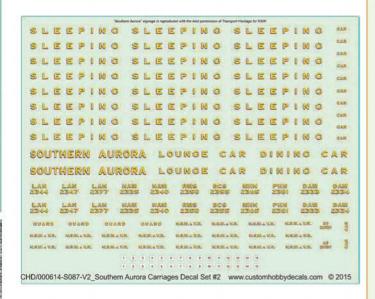
will sound followed by the loco whistle, then the locomotive will start, with loud chuffs synchronised to the wheels. Once a steady speed is reached, the chuffs soften and the whistle sounds at intervals which the operator pre-selects. (All the sounds can be pre-selected, tuned or de-activated by the operator using the remote control supplied). Similar sequences of appropriate sounds are available in the diesel and electric soundcards. The soundcard/speaker unit (illustrated) can be hardwired into a locomotive or trailing vehicle, or 'plug and played' into the circuit board of locomotives equipped with standard DCC sockets. The units are available direct from MyLocoSound via their website.







Custom Hobby Decals have released HO scale decal sheets for the 'Southern Aurora' (two sheets), the MBK/MBY car carrying wagons normally attached to the 'snora' in the 1970s and 1980s (MBK sheet shown) and a sheet of general lettering for NSWGR passenger carriages.



Ixion Model Railways have been appointed the Australian agents for the O (7mm) scale Minerva Model Railways Peckett 0-4-0 saddle tank. Available in lined light green (illustrated), GWR dark green and plain black, the model is available in limited quantities direct from the Ixion website.

AMRM NEWS

'Tulloch' Book Wins Heritage Award

We were very pleased to hear that author David Jehan was

awarded the prestigious '2015 Colin Crisp Award for Engineering Heritage' by Engineers Australia for his book *A History of Tulloch*,



Engineers and Manufacturers, Pyrmont and Rhodes, 1883-1974 published by AMRM's book publishing arm, Eveleigh Press, in late 2015. If you haven't read it yet, see our ad elsewhere in this issue to purchase this fine work and see for yourself why the award was made!

Southern Rail Sound-fitted L Class

Southern Rail have advised that some of their customers are having problems with the correct operation of the sound-fitted version of the WA L class diesel locomotive. They reiterate that it is vitally important to read the manual that accompanies the model before commencing operation and have also prepared further notes to assist purchasers of the sound-fitted version. These notes are available on the Southern Rail website: http://tinyurl.com/hqtup6x.

New Products

HO Scale

Auscision released their r-t-r NSWGR 43 class (see Reviews section), Victorian 'first series' X class (see Recent Releases section), NSW NLDF newsprint vans and, under the 'Bendigo Rail Models' brand, another run of the Victorian 'flat top' T class Bo-Bo diesel, this time in later period form with cut-away valances and appropriate colour schemes for the era. The range of NSW JLX/NLJX louvred vans was expected to arrive around the time this issue is in your hands.

Next release after the JLX was expected to be the NSW NODY open wagons (and derivatives), expected sometime in February 2016.

Revised factory samples of the Southern Aurora were expected in

late December, just after we went to press.

The order forms for the NSW 442 class diesel locomotive, announced last issue, are now available on the Auscision website. The 442 is to be made available with a factory-installed DCC-sound option, a feature that appears to be likely to be offered on all future Auscision locomotives, including re-runs (where possible).

It is planned to re-run the Victorian A and B class diesel locomotives, along with the N and E type passenger carriages, during 2016.

The NSW XPT has exceeded all sales expectations with the SRA original and modern era RailCorp-CountryLink colour schemes getting very low, with the SRA-CountryLink version not far behind.

The Auscision shop, named 'Australian Modeller', had a very successful opening on Saturday, 28 November 2015 and is now open regularly from 10:00am to 4:00pm on Saturdays only. Auscision's management advises that there are no plans to extend opening hours further than Saturday only and that casual visitors cannot be accommodated at other times.

Austrains expect to release their r-t-r NSWGR 41 class diesel locomotives at the Forestville (NSW) exhibition in March 2016. The 41 class, as with the VR Z vans, will only be available at exhibitions attended by Austrains.

The first samples of the NSWGR KKG horsebox are expected to arrive in Australia during the first quarter of 2016, with release of the production run slated for the Thornleigh exhibition in June 2016.

Eureka Models, at the time this item was prepared, were expecting to receive the production run of their NSWGR 72'6" NCR set cars around Christmas time. By the time you read this, distribution should be well under way.

Eureka's management were optimistic that all 'lost' tooling would be recovered and moved to Eureka's current factory just after we went to print, allowing the 2016 program to be 'set in stone'. If efforts to recover the tooling from previous factories are successful, the first outstanding model into production will be the NSW 40 class diesel locomotive. The current factory has indicated an April/May 2016 arrival in Australia of the production run of the 40, if all goes to plan with the recovery effort. The intention is to then do the re-run of the NSWGR

38 class, followed by the VR K class. In between the locomotive projects, all the outstanding rolling stock projects should be taken care of as well. Current planning is that the two VR wagons, S flat and E open wagon, will be done first, followed by the NSW NTAF rail tank car and then the NSW private owner, fourwheel, coal hoppers.

Haskell have arranged a run of 'near enough' Western Australian WW wheat wagons via Frateschi, using existing tooling from the Brazilian range, as a 'stop gap' measure to provide suitable WA rolling stock for their L class diesel locomotive while accurate WA models are developed. They will be branded Frateschi, but will be available direct from Haskell, rather than through the usual Frateschi outlets. The models, expected to be available early in 2016, will be fitted with Kadee couplers and fine scale wheels and will be marketed in fivepacks.

Ixion Model Railways were, at the time this item was prepared, expecting the finalised, factorypainted samples of their NSWGR 'low-frame' 32 class to arrive around Christmas 2015, so photos should by now be posted on their website, blog and Facebook page. Ixion have been assured by the factory that every attempt will be made to despatch the models prior to the Chinese New Year shutdown, but that no guarantees could be made. If all goes well, the models should arrive in Australia in late February or early March 2016.

Lyndon's Trains are continuing to develop their kit for a VR CV passenger guard's van. The model will have a one-piece cast urethane body with brass etched doors, detail parts and Austrains PL car bogies and the first completed sample should be available for show by late January/early February 2016.

Also in development and due for an early new year release is a new building kit, based on the public library in Alexandra, Vic. Work is also progressing on the NSWGR BKF car-carrier and images of the first samples will be posted on the Lyndon's Trains website and Facebook site as soon as they are available.

New masters are being prepared for an upgraded model of the VR's small four-wheeled Jolimont car washing plant shunter, V56, to be re-released in 2016.

Railmotor Models are now expecting delivery of their long-anticipated SCT class Co-Co diesel locomotive in early 2016. Originally envisaged

as a resin body with brass detail parts on a modified commercially available mechanism, built, detailed, finished and painted in Australia, it has evolved into a completely new, from-the-ground-up, r-t-r injection moulded model sourced from China, making use of the expertise of Powerline Models to manage the project in China and the support, sales, marketing and promotional skills of Train World to assist Railmotor Models to 'punch above their weight'.

The locomotive has all the features of a modern-era r-t-r model, full metal chassis, five-pole can motor, twin brass flywheels, all-wheel drive, all-wheel electrical pick up, directional lighting plus ditch lights able to be manually switched on and off by the user via switches under the loco. The ABS plastic body has all the plastic and metal detailing parts expected by today's purchaser

along with finishing to a very high standard. The locomotive is DCC ready and is fitted with a moulded-in sound box to suit the readily available QSI speaker. Railmotor Models recommend a TCS 21 pin-DCC decoder (MTC21-Pin), though any suitable 21-pin decoder can be readily plugged in or hardwired, if that is the purchaser's preference.

Though movements in the Australian dollar recently have forced a price increase over that originally advertised for models purchased 'off the shelf', those who advance ordered their locomotive and have already paid a deposit will receive their locomotives at the original price.

SDS Models received the first batch of their NSWGR MRC/MBC/ MC refrigerated/closed vans in December 2015 with the balance expected to arrive in early January. Also expected in January, but later



Austrains have received production samples of their previously unannounced HO scale r-t-r VR six-wheel Z vans. Expected to be released at the Corio (Vic) model railway exhibition (23-24 January 2016), and comprising two-packs of Z, ZL and ZP variants, the models will only be available at exhibitions attended by Austrains. The models will be provided with Kadee No.148 couplers and optional buffers.



in the month, is the balance of the JCW/NQJW/RQJW 80' container wagons release. This second batch will contain the NQJW/RQJW variants that did not arrive with the first release.

SDS Models expect their next release to be the NSWGR SHG/BHG goods brake vans, which should arrive in mid-February 2016.

Southern Rail released the balance of their WA r-t-r L class locomotives in early December.

Factory painted, updated samples of their QR 2300 class diesel locomotive were expected to arrive in Australia a couple of days after we went to print with this issue and should by now be available for viewing on the Southern Rail website/blog. It was hoped that no further corrections will be required and if this is the case, the first production run should be ready for despatch to Australia early in 2016. Steam Era Models have ordered another batch of VR R class steam locomotive kits from DJH and if all goes to plan they will be available at the Sandown exhibition in March 2016.

Trainbuilder are to produce a very limited run of VR A² 4-6-0 oil-burning locomotives, as fitted with Walschaerts valve gear and Boxpok driving wheels. The tender will be available fitted with either the square or cylindrical oil tank. There will also be an even more limited run with spoked driving wheels, which will be available with either type of oil tender, or the straight-sided coal tender.

There will be a special pack containing A^2995 and A^2996 , as they were in 1962 when they

hauled the last broad-gauge Spirit of Progress.

The next models to arrive are expected to be the VR 102 and 153 h.p. Walker railcars. A limited number of models are still available for general sale, but are not expected to last very long.

The VR X class 2-8-2 and C class 2-8-0 steam locomotive projects are progressing well, with pilot samples expected early in 2016.

Details of the 2016/2017 passenger car program have been released. Expected to arrive in late 2016 or early 2017 are *The Overland* E type sleeping cars, including the last three, *Indi*, *Ovens* and *Werribee*, which had a rather different outside appearance. Also planned are the V type cars, including AV, BV, ABL and CV van, as well as the 'short' (58') PL cars, including the BCPL with the large guard's compartment.

Also planned are the four VR K cars that were leased from the South Australian Railways between 1983 and 1992. These cars were painted in VR blue with yellow stripes and comprised one 500 class steel car, recoded as AK1, one 600 class car, recoded as BKL3 and two 700 class cars, recoded as BK1 and BK2.

The 700 class cars 'excursion cars' painted in the 1994 West Coast Railways colour scheme are being considered, if enough people indicate their interest in acquiring them

A sample of the *Indian Pacific* AFC lounge car was received from the factory just as we went to press. The *Indian Pacific* (AFC,

ARL, ARM, ARJ, BRJ, CDF, DF, ER, HM) and *The Ghan* train packs are still due to arrive in mid-2016, but only three *Indian Pacific* and two *The Ghan* sets are still available for purchase, the rest of the run has already been pre-ordered.

O Scale

Auscision report that delivery of their NSW 45 class locomotive has been delayed again and is now expected to arrive in February 2016.

Haskell have announced the production of r-t-r On2½ (On30) VR narrow gauge NQR open wagons. The vehicles will be retailed in three-packs and should be available in Australia as early as April 2016. The underframes and bogies will also be made available separately, as they were common to just about all the other VR narrow gauge stock.

Model 0 Kits are expecting to have stock of their NSWGR G2 goods shed kit available around the time this issue appears.

The three versions (twin passenger compartment, single passenger compartment and single compartment with centre window) of the NSWGR four-wheel HG goods brake van kits are expected to arrive in February, 2016.

The majority of the O-Aust and Waratah range of kits are now available again, see the Model O Kits website for exact availability. Satisfactory progress is being made on the TRC refrigerated van, BBW bogie ballast wagon and FS/BS passenger carriage projects and they are still on schedule for release at various times in 2016.

Model O Kits are arranging the

production of a limited run of r-t-r 36 and 60 class locomotives (locally assembled from their kits), expected to become available over the next six months or so. The models will be painted black and numbered, with lighting and weathering options available. Contact Model O Kits for prices.

The Model O Kits showroom at Yagoona is now open regularly; see the website for opening times.

N Scale

Gopher Models expect to release their r-t-r, injection-moulded, NSW 44 class locomotive in mid-2016. More information, and updates as they come to hand, are available on the Gopher Models Facebook page.

Compiled by James McInerney

DIARY

WARRNAMBOOL - VIC. January 9-10, 2016. St Joseph's Primary School Hall. 10.00am-5.00pm (Sat), 10.00am-4.00pm (Sun). Exhibition manager David Shalders 0422 164 747 or WMRC Inc. PO Box 1221, Warrnambool 3280.

CORIO – VIC. January 23-24, 2016. Geelong West Town Hall, Pakington St, Geelong West (cnr Albert). 10am-5pm (Sat), 10am-4pm (Sun), Enquiries David Nicholas 0409 528252 or steam3203@yahoo.com.au

FORESTVILLE – NSW. March 5-6, 2016. NSRMA Forestville Exhibition, Forestville Memorial Halls, Cnr. Warringah Rd & Starkey St, Forestville, NSW. Sat 9am-5pm, Sunday 9.00am-4.00pm. Adults \$12, Child \$6, Concession \$8, Family \$28 Andrew King 0412447743 exhibition@nsrma.com.au www.nsrma.com.au

THIRMERE – NSW. March 6, 2016. Thirlmere Public School Hall. SHMR Inc Model Railway Exhibition in conjunction with Thirlmere Steam Festival. 9am-5pm (Sun) \$2/\$1/\$5. KYNETON – VIC. March 12-14, 2016.

KYNETON — VIC. March 12-14, 2016. Macedon Ranges Model Railway Club Inc Exhibition at Sacred Heart College Auditorium. Entry via New & Begg St, Kyneton. 10.00am-5.00pm (Sat & Sun) and 10.00am-4.00pm (Mon). 0427 047 411.

SANDOWN – VIC. March 12-14, 2016. Sandown Train and Hobby Show 2016. Sandown Racecourse, 591-659 Prices Highway Springvale 3170. Enter via Princes Hwy (car) or Sandown Park Station (train) and Grand Stand entry via Gate 2. 10.00am-6.00pm (Sat), 10.00am-5.00pm (Sun), 10.00am-4.00pm (Mon). Adults \$10 Children (4-15) \$5, Children 3 and under free.

BUNDABERG – QLD. March 19-20, 2016. Bundaberg Model Train Expo 2016 at Civic Centre, Bourbong Street, Bundaberg. 9.00am-5.00pm (Sat), 9.00am-4.00pm (Sun). Adults \$8.00, Children 8-16 \$5.00, Family Pass \$20.00 (2 Adults & 3 Children over 8, Children under 8 free. Graham 0407 559 086.

Continued on page 55



Hawkmount Models have received the first factory samples of their r-t-r HO scale RKKY steel wagons with the first painted samples expected just before this issue appears. Production is expected to commence mid-February 2016 (immediately after the Chinese New Year holiday) with arrival in Australia expected around May 2016. Due to customer demand, the Ride Control bogies produced for the RKKY wagons will be available separately and are expected to arrive along with the vehicle packs.

DIARY

Continued from page 54

HURSTBRIDGE – VIC. March 26-27, 2016. Yarra Valley Model Railway Club will be holding its second exhibition at the Hurstbridge Hall, 974 Heidelberg-Kinglake (Main Rd) Hurstbridge. 9.00am-5.00pm (Easter Sat) 10.00am-4.00pm (Easter Sun). Adults \$8.00, Children/Pensioners \$5.00, Family \$20.00. www.yarravalleymrc.com

BENDIGO – VÍC. March 26-28, 2016. Bendigo Model Railroaders Inc. Exhibition at St Andrews Uniting Church Hall, Myers St Bendigo. 10.00am-5.00pm (Sat & Sun), 10.00am-4.00pm (Mon). Adults \$9, Children \$4, Families \$22. Mark Gair 0418 340 399. bendigomodelrailroaders@gmail.com

KALEEN – ACT. April 2-3, 2016. Canberra Model Railway Expo at U of C High School,104 Baldwin Drive, Kaleen, ACT. 9.00am-5.00pm (Sat), 9.00am-4.00pm (Sun). Adults \$10, Children, Concession \$5, family \$25. Andrew Lund (02) 6231 9799. Email: cmrcexpo@cmrci.info Web: www.canberra-model-railway-club.webs.com

BOWEN HILLS – QLD. May 7-8, 2016. Brisbane Model Train Show at Brisbane Showgrounds in the Marquee Pavilion, main entrance from O'Connell Terrace. 9.00am-5.00pm (Sat), 9.00am-4.00pm (Sun). Adults \$15, Concession \$10, Children to 15 Free. www.brisbanemodeltrainshow.com.au Contact brisbanemodeltrainshow2015@gmail.com or AMRA Qld Branch, PO Box 352, Zillmere 4034.

ALBION – VIC. May 14-15, 2016. All American Model Railroad Show at the Maltese Cultural Association Building, 27 Talmage St Albion (Melway 26 F10). 9.30am-5.00pm (Sat), 9.30-4.00pm (Sun). Martin 0432 407 502, ah 9352 4018 or bigboy4007@optusnet.com. au www.facebook.com/usmrca

RICHMOND VALE – NSW. May 14-15, 2016. Annual Model Exhibition at Richmond Vale Railway Museum, Leggetts Drive, Richmond Vale (4 km South of Kurri Kurri). 10.00am-4.30pm (Sat & Sun). Adults \$16, Concession \$11, Children (5-15 Years) \$7.50 Children under 5 free. www.richmond-valerailwaymuseum.org

ALBURY – NSW. May 21-22, 2016. Murray Railway Modellers Inc. Mirambeena Community Centre, 19 Martha Mews, Lavington. 9am to 5pm (Sat.) and 10am to 4pm (Sun.). John Harvey, 0417 650 086 or mrmshow@gmail.com. Web: www.murrayrailwaymodellers.com

OPEN DAYS

BUNDABERG – QLD. March 12, 2016. Bundaberg Model Railway Club Inc. open day in the club rooms at the old show grounds, entrance from Kensington Street. 9.00am-3.00pm (Sat). Free entry. 0414 685 653 or cnpashley@icloud.com.

BRING & BUY - SALE DAYS

BRISBANE – QLD. May 15, 2016. Railway Modellers' Club of Queensland, Buckley Park, Terrence Rd, Brendale. 10.00am-2.00pm (Sun). Entry gold coin. Arrive at 9am if you want to rent a table – no prior bookings. Secretary Quentin Nosovich, 0409 328 888.

Vale James (Jim) Fainges 1931 - 18 October 2015

Well-known Queensland modeller Jim Fainges passed away on 18 October 2015 at the age of 84. Jim started model building at least 70 years ago and model trains over 65 years ago. Initially it was 0 scale, where he built a 2-6-0 with parts from 0 Scale House in Sydney and scratchbuilt an 0 scale 40' boxcar, complete with working brakes. This was the start of an incredible life journey, pioneering through many gauges and multiple scales, as well as making his passion his job and, in retirement, learning Adobe Illustrator to provide multiple scale drawings of (mainly) Queensland narrow gauge stock in his last years. He and his wife were working on a 1:24 scale exhibition layout until shortly before his death, when ill health made it impossible for him to finish the project.

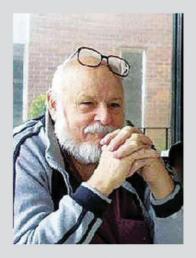
Jim's modelling skill was honed at a time when there was very little available 'off the shelf' and mod-

elling involved preparing your own plans (or using your mates') to build everything yourself. Jim was part of the initial movement to create standards for modelling Australian prototype, as his interest was in building models of the locomotives and wagons that he saw every day where he lived in Queensland. He was an early member of the Australian Model Railway Association (AMRA) and helped pioneer the modelling of Queensland rail equipment in S scale. Indeed, he spent many years modelling and exhibiting in this scale, even winning a bronze medal at the Queensland Industrial Fair for his S scale QR A10 0-4-2 steam locomotive and accompanying carriages.

During this time he also dabbled in TT scale, building a beautiful English-based model for exhibition and home use (not always 'as designed', such as the incident involving two of his sons, a hill on the layout, Hotwheels cars and a certain station fence!) The use of steel rail in the humid Queensland climate, plus the depredations of the children, eventually forced Jim to abandon the layout. The leftover TT gear led Jim (and others) to realise that they had the basis to model 3'6" gauge Queensland equipment in HO scale, using the 12mm gauge track and mechanisms. Jim built one of the first masters for HO scale Queensland equipment, using old 'Red Silicone' rubber to create moulds and producing the parts in two-part 'Poly Patch' for himself and others.

At that time, the Queensland division of AMRA consisted of only a few souls and it was under his house that many were introduced to the modelling of Australian prototype. Jim went on and made a DH B-B shunting locomotive, 1200 class Co-Co diesel and scratchbuilt a C17 4-8-0 steam locomotive, unfortunately all of which were sold when Jim changed scale and prototype again and moved to modelling the famous US narrowgauge Colorado and Southern system in H0n3.

He also helped AMRA (Qld) with its yearly exhibition, which became



very much an annual event for Jim (he even celebrated his 50th wedding anniversary at the show). While being part of the show, he decided to change scale and gauge again, as he was finding HOn3 very taxing on his eyes; doubly important as during this time he was working as a professional model maker with the Qld Transport Department as well. He settled on On30, as there were plenty of donor HO mechanisms he could use to build models of Queensland's 'little' trains, cane and shire tramways, in which he had dabbled during the 1970s, building a working diorama in Sn21/2 of the Buderim Tram. Jim was never one to take on 'little' projects and, with others, exhibited a large On30 layout at the AMRA (Qld) May exhibition in Brisbane. He was once again 'in his element', helping young and old to build their own equipment and even helping some construct their own exhibition layouts.

Jim, during this time, started attending the Australian Narrow Gauge conventions, being present at most of them and eventually being awarded the Ric Richardson Award for services to the narrow-gauge hobby. Jim gave many talks at the convention and even exhibited at a couple. Jim also travelled overseas during this time and received two third place awards (of which he was very proud) at the US narrow gauge conventions, one for a Ruston diesel and three 'whole stick' cane wagons in On2 and the other for a QR KKB combined cattle wagon and guard's van in On3½. Jim also started writing articles for the *Narrow Gauge Down Under* magazine, which inspired him to produce as many plans he could of Australian prototype, narrow-gauge equipment, first as hand-drawn diagrams, then later teaching himself Adobe Illustrator to create them digitally, which he made available to all and sundry, latterly online via the CaneSIG website: www.zelmeroz.com/canesig

Jim held many positions in the hobby, such as Editor and Art Editor of the *AMRA Journal*, Show Manager of the Brisbane Train Shows and Vice President of AMRA Queensland. He was also prolific in writing many articles for publications and conventions and receiving awards for both service to the hobby and modelling in general.

Hopefully, my father will be remembered as a 'larger than life' character, who was always ready for a chat and was ever willing to hand out hints and advice from the knowledge he had gained though his life journey. He leaves behind a huge legacy of detailed models and drawings which, even after his death, are still helping others to build their own models. Many will miss him as an inspiration, some as an acquaintance, others a friend and for a few of us, a lot more. He continues to inspire my modelling, as, no doubt, he continues to inspire the modelling of many others.

Ian Fainges

MAILBAG

Coupling the V/Locity

I purchased a Southern Rail Victorian V/Locity three-car set and experienced problems with the couplers. The coupler plug/socket could not be pushed together far enough to allow the extension piece to remain snapped over the spigot, resulting in separation of the couplings in operation when the power car was leading. Operating the set with power car trailing, pushing the trailers would, of course, keep them together, but this not really an acceptable solution.

Having a large display case at my disposal for displaying models I decided that the best solution would be to glue the couplings together permanently. The three-car set is run off onto a section of removable track attached to a spur off the main layout, then removed to the display case. Permanently coupling the cars was also considered advisable due to the coupler inaccessibility and the required care necessary. As an aside, I found it far easier to lay the cars on their roof in a foam cradle when coupling them together, rather than the importer's recommended method.

It is a very fine model, which looks and runs well, but it is disappointing that such a simple defect spoilt my enjoyment somewhat, given that it was an expensive model. I could have taken it back and demanded a refund, but I was satisfied with my solution to the problem.

I did email the Australian importer (Southern Rail) regarding the problem, but have not yet received a response.

Roger Berridge Port Elliot 5212

MAILBAG

Australian MODEL RAILWAY Magazine welcomes letters on any pertinent model railway subject for inclusion in Mailbag. Letters should be sent to Mailbag, SCR Publications, PO Box 345, Matraville 2036, emailed to ammagzn@tpg. com.au or faxed to (02) 9661 4323. All Mailbag contributions must include the writer's name, address and phone number to permit verification. Contributions without this information will not be considered for publication.

Editor

Exhibitions

I am a regular exhibitor of a model railway layout and have personally built and displayed five layouts over the last 20 years (about 50 events). I have further displayed with club layouts, a further ten events over five years before that.

I am pleased with the way that the overall standard of layouts being presented to the public has improved over this time and that it is in the minority that mixed continents of models are displayed on a layout at the same time. I do understand that particularly club layouts and individual modellers within that club do have other interests, other than Australian outline, and some flexibility must be given.

The main problem these days is the expectation of some organisers that layouts need to be significantly changed for the public each year. Basic changes of rolling stock can be used. There are steam and diesel eras and even other outlines to help make layouts different. We all like to see new layouts and appreciate layouts that have great modelling.

We all know that it can be expensive to build a layout. Timber, track, electrical connections and scenery materials are not cheap. Transport to and from displays can also be a significant expense, including trailers, and many organising clubs arrange for modellers to use their club rooms or the hall to save accommodation costs.

While some organisers do understand, I find it difficult to swallow comments from other organisers that layouts need to be replaced or have significant changes frequently and yet, these same organisers now expect exhibitors to cover their own public liability insurance. Very few organisers provide electrical testing of power packs and cords for a token cost, as an electrician will charge an individual at least \$100.00 to do this for one year. Just for a couple of transformers, extension cords, power board and other tools as required, it soon adds up.

As an exhibitor, my enjoyment is being able to meet other modellers and have a great time and display a working reliable layout to the public. This includes being able to answer their questions to help them build their layouts. I do not exhibit my layout to make money as, if this was the case, the average layout with only two people would need to be paid at least \$560.00 per day, plus insurance, accommodation, all meals whilst travelling and transport, which would result in no displays being done as there would be

no way the organisers could cover the costs, let alone make a profit.

Modellers in this group who display their layouts are not there to make money, but are there for the friendship and a weekend away. This is even a greater consideration for club members where the money paid for the display goes to the club and not the individuals who have paid their way to attend these events to promote their club and the hobby.

Some organisers, particularly in larger events, need to consider that they should be helping out these very modellers with simple things like electrical testing and tagging. Public Liability insurance should be paid by the organisers of the exhibition and not required by the individuals displaying layouts for the organisers' benefit. I fear that in the very near future, mandatory police checks for dealing with children will be required at yet another expense for each individual promoting the hobby at these displays. In South Australia a Volunteer Check is currently \$24.90 per person. A layout with five people soon adds up to a considerable cost.

I believe now is the time for a Code of Conduct to be written covering the minimum requirements that are recommended to hold a model railway exhibition and how the organisers should approach the legal requirements to assist the modellers who are making the sacrifice of their time to promote the hobby for the organisers.

The individual modeller should not be required to pay for Public

Liability insurance, electrical testing at full rates and police checks just to be able to display for the public, but the organisers should be looking to cover these costs for the individuals and clubs promoting the hobby.

David Zeitz Mt Barker 5251

Whatever happened to ...?

No doubt this question has been asked before over the years. I wonder whatever happened to so many of those lovely exhibition layouts that have been displayed over the years? One in particular I remember was at the Adelaide show. You paid a small price and could stay all day, a beautiful layout that went from day to night scenes at a regular interval. Remember this was in the late 1960s with less electronics than today (I think it was a ROCO layout). I often wonder whatever happened to this layout, surely too good to break up.

I wonder if your readers would like to share their memories of those truly magnificent layouts that probably got so many of us interested in having our own layouts.

> David Elliott Windsor Gardens 5087

We too would be interested in hearing of the fate of many of the fine layouts that have appeared at exhibitions over the years. If you have information on the current status of any of them, AMRM would be interested to hear from you – Editor

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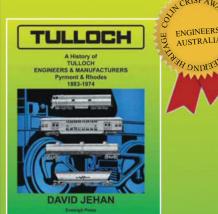


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by DAVID JEHAN

Robert Tulloch arrived in Sydney from the Orkney Islands in 1877 and managed to get a job as a boilermaker with the Atlas Foundry and Engineering Company, branching out on his own in 1883, when he started Robert Tulloch and Company and so began an engineering dynasty that was to contribute much to the development of Sydney, New South Wales and Australia. The company started operations in Pyrmont, where it operated from 1883 to 1915. It was from this location that Robert and his staff supplied structural steelwork for the Queen Victoria Building, the Centennial Hall of Sydney Town Hall, the Eveleigh Carriage Works, Sydney Central Station, Anthony Hordern and many other notable Sydney buildings and the railway bridges over the Nepean River at Penrith and the Manning River at

Mt George in northern NSW. At Pyrmont too they entered the railway rolling stock business.

In 1915 the company moved to Rhodes where it diversified into many fields including the manufacture of steel tube and fittings, garden tools. The foundry produced many items for industry and domestic use, including many tons of cast iron pipe for the Sydney water system. They also opened their own timber mill with tramway in northern NSW and operated their own timber tramway into the hills for timber getting. During WWII they contributions to the war effort with components for the Australian Cruiser tanks and construction of oceangoing lighters for the US and Australian Armies.

The company finally closed in 1974 after ninety-one years of operation.

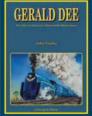
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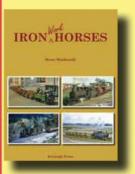
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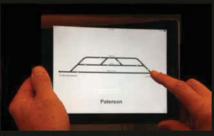
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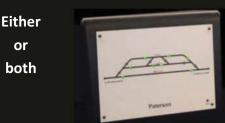


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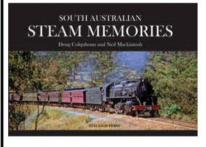
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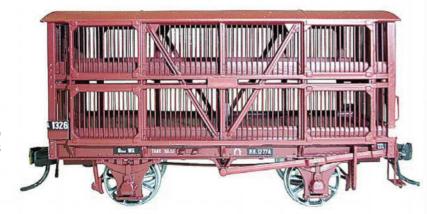
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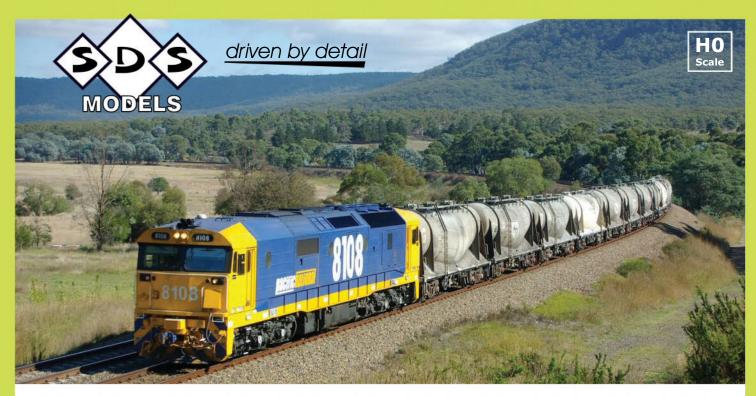
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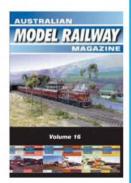
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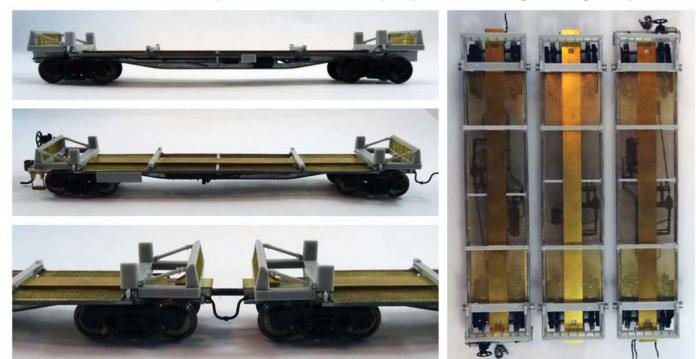
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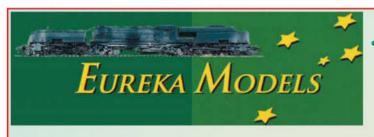
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